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Dejan Marolov

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Predictive Relationships Among Smartphone Addiction, Fear of Missing Out and Interaction Anxiousness

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Abstract

The aim of this study is to reveal the predictive relationships among smartphone addiction, fear of missing out (FOMO) and interaction anxiousness in university students. The study group of the research consists of 610 university students, 325 (53.3%) females and 285 (46.7%) males that were studying in Konya Turkey. In order to collect the data scales of Smartphone Addiction, Fearing Missing Developments in Social Environments and Interaction Anxiousness were used. The data were analyzed according to the "Structural Equation Model" via the AMOS program. According to the findings, the fear of missing out affects smartphone addiction significantly. Fearing of missing developments in social environments significantly affects interaction anxiousness and the interaction anxiousness meaningfully affects smartphone addiction.

Keywords: Smartphone addiction, FOMO, Interaction Anxiousness, University students.

Introduction

Smartphones are increasingly ubiquitous (Andrus, Dall, Hof, Laadan & Nieh, 2011) and offer a wide range of mobile applications for information, communication, education and entertainment (Haugi et al., 2015). While it is clear that people have the general tendency to be concerned about self-presentation and interaction with others, the underlying causes of such a predisposition are unclear and possibly complex (Auera, Calvia, Jordana, Schradera & Byrd-Cravena, 2018). It is observed that individuals experience more anxiety in social environments than they do when they are alone (Coskun, 2009).

Smartphones have replaced not only cell phones, but also personal computers and many other devices. Large screen sizes and natural mobility have enabled access to many functions anytime and anywhere (Samaha &

Hawi, 2016). In addition to these advantages, due to the fact that smartphones allow the use of many features of the internet, it has emerged that addiction to smart phones causes physical and psychosocial problems (O'Reilly, 1996). Excessive smartphone usage causes a decrease in real life social interaction (Kuss & Griffiths, 2011). Adolescents with poor social competence who are concerned about social interactions find social interactions online less dangerous than real life because of the anonymity provided by the internet (Shin & Jang, 2016). For this reason, according to Bonetti, Campbell & Gilmore (2010), with the widespread use of the Internet, the behavior of individuals' behaviors of establishing and maintaining friendships have begun to be moved to the virtual environment. Based on this situation, technological dependence is significantly more common in young adults (18-30 years old) who are in constant communication via new technologies (Laconi, Tricard & Chabrol, 2015).

The fact that information is more accessible than ever, since many people can now access social media on mobile devices, has made it possible for people to become more dependent on consuming information. Social media gives people the opportunity to share information with others easily and allows them to manipulate what other people are doing and saying (Abel, Buff & Burr, 2016; Hetz, Dawson & Cullen, 2015). With this opportunity and with the fear of missing out on social developments, frequent use of internet communication applications can trigger the behavior of following other users' online activities (Wegmanna, Oberst, Stodt & Branda, 2017). The FOMO experience has been made possible by the virtual explosion of real-time sharing provided by social media tools, smartphones and tablets. These tools provide a continuous opportunity to influence what others are missing. While these technological facilities allow more frequent social interaction, they also increase the dependence of trust on mediated communication (Conlin, Billings & Averset, 2016).

Social interaction anxiousness means experiencing anxiety about social situations involving significant direct social interaction with others, such as meeting someone new at a party, talking to an attractive person or expressing views (Kimbrel, Mitchell & Nelson-Gray, 2010). It is at this point that individuals who prefer to communicate with others indirectly, due to the anxiety they experience, are likely to experience the fear of missing out and become dependent on smartphones. Therefore, in this study, it was aimed to reveal the predictive relationships among smartphone addiction, fear of missing out (FOMO) and interaction anxiousness in university students.

Smartphone addiction

Smartphone addiction is defined as the compulsion to use smartphones, even though individuals can anticipate the risks and negative consequences of their behavior (Kim, Lee, Lee, Nam & Chung, 2014). Smartphone addiction is characterized by symptoms of compulsive behavior, withdrawal, tolerance and functional deterioration (Lopez-Fernandez, 2017) as an impulse control disorder (Park & Lee, 2011; Mok et al., 2014). Besides, according to Jeong, Kim, Yum & Hwang (2016), social networking and playing games are also avenues of smartphone addiction. Smartphones have become the basic devices in daily life; however, the technological advantages of smartphones cause adverse side effects when used excessively (Kim, 2013; Kuss, Griffiths, Karila & Billieux, 2014). Smartphone addiction may be accompanied by anxiety (Hawi & Samaha, 2017a; Elhai, Levine & Hall, 2019), low life satisfaction (Hawi & Samaha, 2017b), and reduced psychosocial well-being (Herrero, Urueña, Torres & Hidalgo, 2019).

FoMO (Fear of Missing out)

Fear of missing out (FOMO) developments may indicate a certain personal inclination and a certain cognition about FOMO in an online topic (Fox & Moreland, 2015). According to Przybylski, Murayama, DeHaan and Gladwell (2013), the fear of missing out is the fear that other people will have fun without you.

It seems that those who are afraid of missing out on social happenings use social media extensively because they feel that they need to be constantly aware of everything that is happening in their social networks as a means of their basic satisfaction needs (Przybylski, Murayama, DeHaan & Gladwell, 2013). Social media use can only be one result of FOMO. The ones who have high FOMO and who are staying connected with others can be affected negatively in terms of their mental and physical health (Baker, Krieger & LeRoy, 2016).

The Interaction Anxiousness

Although social anxiety is seen as a unified theory, there are subcategories of social anxiety, such as the fear can be limited to a particular situation or it can be generalized and show up in many situations. Attempts to classify the causes of anxiety distinguish between those involving others observing or examining them, and those involving social interactions such as speaking or greeting (Liebowitz, 1987, quoted by Habke, Hewitt, Norton & Asmundson, 1997). Accordingly, social and social interaction anxiousness can be divided into two categories: general fear of social interaction situations/social phobia, and fear of being socially examined during routine

activities (Lyvers, Hanigan & Thorberg, 2018). Social interaction anxiousness is defined as individuals' anxiety in different social environments (Leary & Kowalski, 1993), meeting with others, fear and avoidance of interaction and self-expression (Kashdan, 2004). Disturbing emotions are among the main symptoms of social interaction anxiousness (Pierce, 2009), which is also defined as meeting other people and having trouble in speaking with them (Mattick & Clarke, 1998). Individuals with social interaction anxiousness tend to be self-conscious and criticize themselves more during social experiences (Hirsch, Clark, Mathews & Williams, 2003). The interaction anxiousness scale used in this study is also important in terms of emphasizing the emotional element of social tension (Coskun, 2009).

Individuals who prefer to communicate with others indirectly, due to the anxiety they experience, are likely to experience the fear of missing out and become dependent on smartphones. At this point, it was aimed to reveal the predictive relationships among smartphone addiction, fear of missing out (FOMO) and interaction anxiousness in university students.

Method

In the research, it was aimed to test the model that was formed with relationship among the fear of missing out, interaction anxiousness and smartphone addiction. For this purpose, the relational survey model, which is a sub-type of the general survey model, was used. Relational survey model is the research conducted to determine the relationships between two or more variables (Buyukozturk, Kilic-Cakmak, Akgun, Karadeniz & Demirel, 2014).

Study Group

The study group of the research was formed with university students in the province of Konya in Turkey who volunteered to participate in the study. The study group consisted of 325 (53.3%) females and 285 (46.7%) males, for a total of 610 subjects. There were 185 students (30.3%) between the ages of 18-20, 262 (43.0%) between the ages of 21-23 and 163 (26.7%) over the age of 24. According to their years of study, there were 96 (15.7%) freshmen, there were 226 (37.0%) students who were in their second year, there were 149 people (24.4%) who were in their third year and 139 (22.8%) in their final year.

Data Collection Tools

The Fear of Missing Out scale (FOMOs)

In order to measure students' fears of missing out on social happenings, the Fear of Missing Out scale (FOMOS) developed by Przybylski, Murayama, DeHaan & Gladwell (2013) was used in the research. The high score obtained from the scale, consisting of 10 items and a five-point Likert type, shows that

the fear of missing is increased. The reliability and validity studies of the scale in Turkey was carried out by Gokler, Aydin, Unal & Metintas (2016). According to the factor analysis, the factor loads of the one-dimensional structure vary between 0.36-0.77. Cronbach alpha coefficient of the scale was found 0.81, and the test-retest reliability coefficient was 0.81 (Gokler, Aydin, Unal & Metintas, 2016). The Cronbach alpha coefficient calculated in this research was found as .83. Cronbach's alpha (α) coefficient is used to estimate the reliability of a psychometric test. If the coefficient is 0.7 and above, the reliability of the scale is considered good (Kilic, 2016).

The Social Interaction Anxiousness Scale (SIAS):

In order to measure students' interaction anxiety levels in the research, the Interaction Anxiousness Scale developed by Leary and Kowalski (1993) was used. The high score of the scale consisting of 15 items and a five-point Likert type indicates the high level of interaction anxiousness and the low score display low level of interaction anxiousness. In the studies conducted by Leary and Kowalski (1993), the internal consistency of the scale was reported as .88 and the test-retest reliability coefficient was .80. The validity and reliability studies of the Turkish sample were conducted Coskun (2009). The results of the various factor analyzes show that the items of the scale are gathered in a single factor, consistent with the original scale, and explain 44.4% of the variance. The internal consistency coefficient of the scale was found to be .91 and the test-retest reliability coefficient performed at three-week intervals was .80 (Coskun, 2009). The Cronbach alpha coefficient calculated in this research was .65. Cronbach's alpha (α) coefficient is used to estimate the reliability of a psychometric test. If the coefficient is 0.7 and above, the reliability of the scale is considered good (Kilic, 2016).

Smartphone Addiction Scale Short Form:

In order to measure students' smartphone addiction in the research, the Smartphone Addiction scale developed by Kwon et al. (2013) was used. The high score obtained from the 10-item Likert-type scale shows that smartphone addiction is high. In the studies conducted by Kwon et al. (2013), the Cronbach alpha values of the scale was reported as .96. Reliability and validity studies of the scale were carried out by Noyan, Enez-Darcin, Nurmedov, Yilmaz & Dilbaz (2015) in Turkey. Cronbach alpha coefficient, which shows the reliability of the scale, was measured as 0.867. Test-retest reliability coefficient was found to be 0.926 (Noyan, Enez-Darcin, Nurmedov, Yilmaz & Dilbaz, 2015). Cronbach alpha coefficient calculated in this research is found as .87. Cronbach's alpha (α) coefficient is used to estimate the reliability of a psychometric test. If the coefficient is 0.7 and above, the reliability of the scale is considered good (Kilic, 2016).

Data Analysis

In this study, which was conducted to test the model formed with the predictive relationships among smartphone addiction, fear of missing out (FOMO) and interaction anxiety in university students, the correlation values of variables were obtained via SPSS 21 program. Then, the model formed was tested with Structural Equation Model (SEM). SEM is a method performed to establish a statistical cause-effect bond (Byrene, 2013). Since each of the scales in the model consists of a single dimension, it reduces the standard errors in the measurement and increases the reliability (Alhija & Wisenbaker, 2006). Each scale is divided into two parcels, taking into account their internal consistency. Parceling is computing sums or average scores across multiple items. They are used as indicators of latent factors in the structural equation modeling. The model obtained in the present study was tested with the AMOS 16 program.

Results

In this section, correlation analysis for the relationships among the variables and findings of the structural equation model are presented.

Correlation Values Between Variables

Table 1. Correlation Table Among Fear of Missing Out, Interaction Anxiousness and Smartphone Addiction

Analyse	Fear of Missing Out	Interaction Anxiousness	Smartphone Addiction
Fear of Missing Out	1	.356**	.496**
Interaction Anxiousness		1	.306**
Smartphone Addiction			1

According to the findings in Table 1, positive correlations were found. These correlations are as follows: between fear of missing out and smartphone addiction (r=.496, p<.01); between interaction anxiousness and smartphone addiction (r= .306, p<.01) and between fear of missing out and interaction anxiousness (r= .356, p<.01).

Structural Equation Model

The effect of fear of missing out on interaction anxiousness and smartphone addiction and the effect of interaction anxiousness on smartphone addiction were tested via the Structural Equation Model. Each of the paths shown in the model was found statistically significant. It was observed that the fit indices of the model obtained showed a good fit.

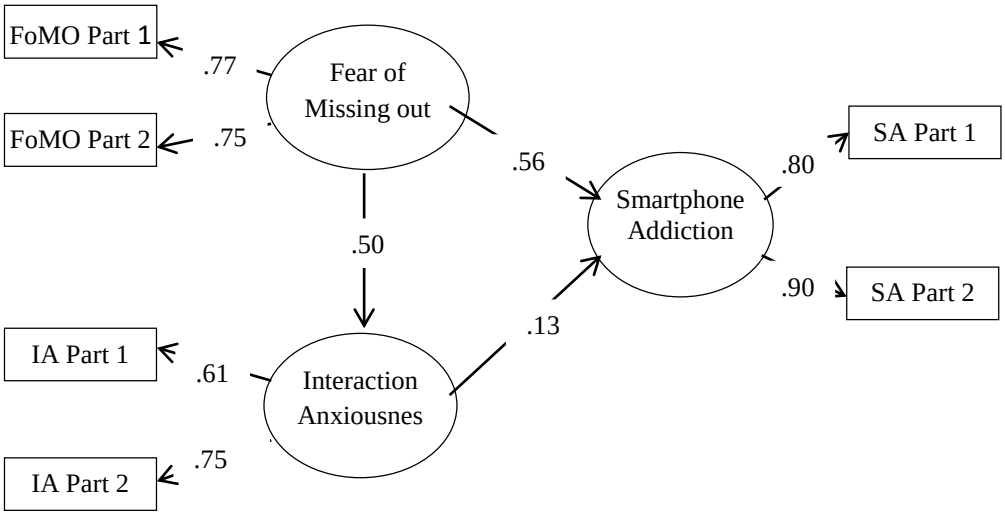

Figure 1. Structural Equation Model Test Results

Note. **p<0.01, FoMO Part 1-2= Fear of missing out parcel, SA Part 1-2=Smartphone addiction parcel, IA Part 1-2=Interaction anxiousness parcel

When the fit values of the model in Figure 1 are examined, the following results were obtained: X^2/sd =1.98, RMSEA= 0.04, SRMR=0.0, AGFI=0.98, NFI =0.99, GFI =0.99, CFI =0.99, TLI = 0.98. In general, it is understood that the model has the desired level of fit (Bollen, 1989; Browne & Cudeck, 1993; Byrne, 2010; Hu & Bentler, 1999; Kline, 2011; Tanaka & Huba, 1985). The one-factor model tested is shown in Figure 1. All paths shown in the model are significant at 0.001 level. These values show that the established structural model is within acceptable limits. The standardized beta, standard error and significance values of the model are shown in Table 2.

Table 2. Model for Predictive Relationships Among Fear of Missing Out, Interaction Anxiousness and Smartphone Addiction

Predictive Variable	Dependent Variable	Standardized β	Standard Error	Critic Value
Fear of Missing Out	Smartphone Addiction	0.56	0.09	8.29**
Fear of Missing Out	Interaction Anxiousness	0.50	0.06	8.08**
Interaction Anxiousness	Smartphone Addiction	0.13	0.07	2.11*

*p<0.05, **p<0.01

The connection coefficient value for this factor was found to be β=0.56. Fear of missing out significantly affects interaction anxiousness and interaction anxiety affects smartphone addiction meaningfully. Connection coefficients obtained were respectively β=0.50 and β=0.13. A positive effect was observed on all paths of the model.

Discussion

According to the findings, the fear of missing out (FoMO) affects smartphone addiction significantly. This finding supports the effect of FoMO on the overuse of smartphones obtained in previous studies (Elhai, Levine, Dvorak & Hall, 2016; Chotpitayasunondh & Douglas, 2016; Clayton, Leshner & Almond, 2015; Hong, Chiu & Huang, 2012). Individuals experiencing high levels of FoMO are likely to suffer from problematic smartphone usage and emotional control (Wolniewicz, Tiamiyu, Weeks & Elhai, 2018). In addition, there is a significant relationship between addiction to the internet and social networks and the excessive usage of the smartphones (Mohammadi et al., 2018). Most smartphone users utilize the internet at high levels (Kawabe, Horiuchi, Ochi, Oka & Uenno, 2016). One of the most important channels of communication with people is through the internet, and social networks help people to be aware of what is happening around the world. Thus, avoiding the flow of information can give the person a feeling that one of their life channels has disappeared. Therefore the individual can reach for their smartphone as a means to stay informed and avoid this feeling. In addition, the positive relationship between FoMO and internet addiction support the findings of the study (Blanca & Bendayan, 2018). FoMO has been associated with problematic internet use, especially the overuse of social media (Alt, 2015; Casalea, Rugaib & Fioravantia, 2018).

Fear of missing out significantly affects interaction anxiousness. The fear of missing out is a triggering factor for people as the grasp for being aware of what is going on (Reagle, 2015), as well as the use of social media

(Przybylski, Murayama, DeHaan & Gladwell, 2013; Oberst, Wegmann, Stodt, Brand & Chamarro, 2017). People with interaction anxiousness are those who avoid being in face-to-face social environments and prefer mediated social relationships. Based on this, it is possible that a person who continues to communicate via the internet and waits to be informed about people minute-by-minute, will have anxiety when interacting with others. Social anxiety (Dempseya, O'Briena, Tiamiyua & Elhaia, 2019) is associated with fear of missing out on social happenings. The findings of the studies in the field (Elhai, Levine, Alghraibeh, Alafnan, Aldraiweesh & Hall, 2018; Elhaia, Yanga, Fanga, Baia & Hall, 2019) supports the findings of the present study regarding FoMO mediating the relationships between smartphone addiction and interaction anxiousness.

Interaction anxiousness significantly affects smartphone addiction. In studies conducted on the subject, smartphone addiction was found to be significantly associated with anxiety (Billieux et al. 2015; Thomsen et al., 2018). The convenience of the smartphone keeps the person in contact with other people without feeling threatened by uncomfortable emotions. For this reason, individuals with social anxiety tend to communicate with other people via their smartphones. The more the individual avoids communicating directly, the higher the anxiety of interaction can be, and the higher the frequency of smartphone usage. A statistically significant positive relationship was found between interaction anxiety and smartphone addiction among university students (Konan, Durmus, Turkoglu & Agiroglu-Bakir, 2018; Konan & Celik, 2019). There were similar results in the research conducted by Lee, Chang, Lin, & Cheng (2014). These findings support the findings obtained in the present study.

Conclusion

As a result of the study, it was found that the fear of missing out, smartphone addiction and interaction anxiousness were significantly related in university students. Additionally, the model among the variables was found to be significant. It is obvious that university students are at an important transition period in their lives. In this period, considering the risky behavior characteristics of the age range they are in, they may tend to suffer more from smartphone addiction. As they step into new social environments, they might feel anxious while communicating with people-this can easily be triggered in a university environment where they meet new people regularly. Therefore, instead of sitting, talking, traveling and communicating directly with them, they can make smartphones the easiest way to reach and be informed about these new friends. As a result, fear of missing out in university students, increases smartphone addiction, and is likely to be found in young people who have interaction anxiousness.

Recommendations

According to the results obtained in the study, due to their developmental characteristics, university students might want to be aware of their friends' environment and what is happening in the world. This can push them to worry about being unaware of what's happening in their social environment. At the same time, young people who develop such anxiety can turn into individuals who avoid communicating face-to-face with people and instead prefer smartphone-mediated interactions, which is a potential danger for young people. Young people can and should be directed to social environments where they can have fun through face-to-face communication. Being in youth groups and participating in volunteering activities may help them work through their potential concerns. This may help them fulfill their needs of belonging to a group. At the same time, young people can be informed about to what extent the use of smart phones is necessary, as well as what kind of usage makes it problematic. The limitations imposed on the students in the necessary environments may also boost them in conscious usage of smartphones.

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References

1. Abel, J. P., Buff, C. L., & Burr, S. A. (2016). Social media and the fear of missing out: Scale development and assessment. *Journal of Business & Economics Research-First Quarter, 14(*1), 33-44.
2. Alhija, F. N. A., & Wisenbaker, J. (2006). A Monte Carlo study investigating the impact of item parceling strategies on parameter estimates and their standard errors in CFA. *Structural Equation Modeling: A Multidisciplinary Journal, 13*(2), 204-228. https://doi.org/10.1207/s15328007sem1302_3
3. Alt, D. (2015). College students' academic motivation, media engagement and fear of missing out. *Computers in Human Behavior, 49*, 111-119.
4. Andrus, J., Dall, C., Hof, A.V., Laadan, O., & Nieh, J. (2011). Cells: A virtual mobile smartphone architecture. SOSP '11: Proceedings of the Twenty-Third ACM Symposium on Operating Systems Principles October 173-187 https://doi.org/10.1145/2043556.2043574
5. Auera, B. J., Calvia, J. L., Jordana, N.M., Schradera, D., & Byrd-Cravena, J. (2018). Communication and social interaction anxiety enhance interleukin-1 beta and cortisol reactivity during high-stakes

public speaking. *Psychoneuroendocrinology, 94,* 83-90. https://doi.org/10.1016/j.psyneuen.2018.05.011

6. Baker, Z. G., Krieger, H. & LeRoy, A. S. (2016). Fear of missing out: Relationships with depression, mindfulness, and physical symptoms. *Translational Issues in Psychological Science, 2*(3), 275-282.
7. Billieux, J., Philippot, P., Schmid, C., Maurage, P., Mol, J. D., & Linden, M. V. D. (2015). Is dysfunctional use of the mobile phone a behavioral addiction? Confronting symptom-based versus process-based approaches. *Clinical Psychology & Psychotherapy, 22*(5), 460-468. https://doi.org/10.1002/cpp.1910
8. Blanca, M. J. & Bendayan, R. (2018). Spanish version of the Phubbing Scale: Internet addiction, Facebook intrusion, and fear of missing out as correlates. *Psicothema, 30*(4), 449-454 doi: 10.7334/psicothema2018.153
9. Bollen, K. A. (1989). *Structural equations with latent variables*. New York: John Wiley & Sons, Inc.
10. Bonetti, L., Campbell, M. A., & Gilmore, L. (2010). The relationship of loneliness and social anxiety with children's and adolescents' online communication. *Cyberpsychology, Behavior and Social Networking, 13*(3), 279-285.
11. Browne, M. W., & Cudeck, R. (1993). *Alternative ways of assessing model fit.* In K. A. Bollen and J. S. Long (Eds.), Testing structural equation models (pp. 136-162). Newbury Park, CA: Sage.
12. Buyukozturk, S., Kilic-Cakmak, E., Akgun, E.O., Karadeniz, S., & Demirel, F. (2014). *Scientific research methods.* Ankara: Pegem Academy Publishing.
13. Byrne, B. M. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming.* 2nd Edition. Routledge Taylor & Francis Group.
14. Casalea, S., Rugaib, L., & Fioravantia, G. (2018). Exploring the role of positive metacognitions in explaining the association between the fear of missing out and social media addiction. *Addictive Behaviors, 85*, 83-87.
15. Chotpitayasunondh, V., & Douglas, K. M. (2016). How "phubbing" becomes the norm: The antecedents and consequences of snubbing via smartphone. *Computers in Human Behavior, 63*, 9-18. http://dx.doi.org/10.1016/j.chb.2016.05.018.
16. Clayton, R. B., Leshner, G., & Almond, A. (2015). The extended iSelf: the impact of iPhone separation on cognition, emotion, and physiology. *Journal of Computer- Mediated Communication, 20,* 119-135. http://dx.doi.org/10.1111/jcc4.12109

17. Conlin, L., Billings, A. C. & Averset, L. (2016). Time-shifting vs. appointment viewing: the role of fear of missing out within TV consumption behaviors. *Communication & Society, 29*(4), 151-164.
18. Coskun, H. (2009). The interaction anxiousness scale: A study for validity and reliability. *Türk Psikoloji Yazıları, 12*(23), 41-49.
19. Dempseya, A. E., O'Briena, K.D., Tiamiyua, M.F. & Elhaia, J. D. (2019). Fear of missing out (FoMO) and rumination mediate relations between social anxiety and problematic Facebook use. *Addictive Behaviors Reports, 9*, 100-150.
20. Elhai, J. D., Levine, J. C., Alghraibeh, A. M., Alafnan, A., Aldraiweesh, A. A. & Hall, B. J. (2018). Fear of missing out: Testing relationships with negative affectivity, online social engagement, and problematic smartphone use. *Computers in Human Behavior, 89,* 289-298. https://doi.org/10.1016/j.chb.2018.08.020.
21. Elhai, J. D., Levine, J. C., Dvorak, R. D. & Hall, B. J. (2016). Fear of missing out, need for touch, anxiety and depression are related to problematic smartphone use. *Computers in Human Behavior, 63*, 509-516.
22. Elhai, J. D., Levine, J. C. & Hall, B. J. (2019). The relationship between anxiety symptom severity and problematic smartphone use: A review of the literature and conceptual frameworks. *Journal of Anxiety Disorders, 62,* 45-52. https://doi.org/10.1016/j. janxdis.2018.11.005.
23. Elhaia, J. D., Yanga, H., Fanga, J., Baia, X., Hall, B. J. (2020). Depression and anxiety symptoms are related to problematic smartphone use severity in Chinese young adults: Fear of missing out as a mediator. *Addictive Behaviors, 101*, 105962 https://doi.org/10.1016/j.addbeh.2019.04.020
24. Fox, J. & Moreland, J. J. (2015). The dark side of social networking sites: An exploration of the relational and psychological stressors associated with Facebook use and affordances. *Computers in Human Behavior, 45,* 168-176.
25. Gokler, M. E., Aydin, R., Unal, E., & Metintas, S. (2016). Determining validity and reliability of Turkish version of Fear of Missing out Scale. *Anadolu Psikiyatri Dergisi, 17*(1), 53-59.
26. Herrero, J., Urueña, A., Torres, A., Hidalgo, A. (2019). Socially connected but still isolated: Smartphone addiction decreases social support over time. *Social Science Computer Review, 37,* 73-88.
27. Hong, F. Y., Chiu, S. I., & Huang, D. H. (2012). A model of the relationship between psychological characteristics, mobile phone addiction and use of mobile phones by Taiwanese university female

students. *Computers in Human Behavior, 28,* 2152-2159. doi:10.1016/j. chb.2012.06.020
28. Haugi, S., Castro, R.P., Kwon, M., Filler, A., Kowatsch, T., & Schaub, M. P. (2015). Smartphone use and smartphone addiction among young people in Switzerland. *Journal of Behavioral Addictions, 4*(4), 299-307 doi: 10.1556/2006.4.2015.037
29. Habke, A. M., Hewitt, P. L., Norton, G. R. & Asmundson, G. (1997). The social phobia and social interaction anxiety scales: an exploration of the dimensions of social anxiety and sex differences in structure and relations with pathology. *Journal of Psychopathology and Behavioral Assessment, 19*(1), 21-39.
30. Hawi, N. S. & Samaha, M. (2017a). Relationships among smartphone addiction, anxiety, and family relations. *Behavior & Information Technology, 36*(10), 1046-1052. https://doi.org/10.1080/0144929X.2017.1336254
31. Hawi, N. S. & Samaha, M. (2017b). The Relations among Social Media Addiction, Self-Esteem, and Life Satisfaction in University Students. *Social Science Computer Review, 35*(5), 576-586. doi: 10.1177/0894439316660340
32. Hetz, P. R., Dawson, C. L., & Cullen, T. A. (2015). Social media use and the fear of missing out (FoMO) while studying abroad. *Journal of Research on Technology in Education, 47*(4), 259-272, doi: 10.1080/15391523.2015.1080585
33. Hirsch, C. R., Clark, D. M., Mathews, A., & Williams, R. (2003). Self-images play a causal role in social phobia. *Behavior Research and Therapy, 41*(8), 909-921. doi:10. 1016/S0005-7967(02)00103-1
34. Hu, L. & Bentler, P. (1999). Cutoff criteria for fit indices in covariance structure analysis: conventional criteria versus new alternatives. *Structural Equation Modeling, 6*, 1-55.
35. Jeong, S., Kim, H. J., Yum, J., & Hwang, Y. (2016). What type of content are smartphone users addicted to?: SNS vs. games. *Computers in Human Behavior, 54*, 10-17.
36. Kawabe, K., Horiuchi, F., Ochi, M., Oka, Y. & Ueno, S. I. (2016). Internet addiction: Prevalence and relation with mental states in adolescents. *Psychiatry and Clinical Neurosciences, 70,* 405-412. doi:10.1111/pcn.12402
37. Kashdan, T. B. (2004). The neglected relationship between social interaction anxiety and hedonic deficits: differentiation from depressive symptoms. *Anxiety Disorders, 18*, 719-730.
38. Kilic, S. (2016). Cronbach's alpha reliability coefficient. *Journal of Mood Disorders (JMOOD)*, 6(1), 47-48.

39. Kim, K. (2013). Association between Internet overuse and aggression in Korean adolescents. *Pediatrics International, 55*(6), 703-709. doi: 10.1111/ped.12171
40. Kim, D., Lee, Y., Lee, J., Nam, J. K. & Chung, Y. (2014). Development of Korean Smartphone Addiction Proneness Scale for Youth. *PLoS ONE, 9*(5), 1-8. https ://doi.org/10.1371/journal.pone.00979 20.
41. Kimbrel, N. A., Mitchell, J. T., & Nelson-Gray, R. O. (2010). An examination of the relationship between behavioral approach system (BAS) sensitivity and social interaction anxiety. *Journal of Anxiety Disorders, 24,* 372-378.
42. Kline, R. B. (2011). Convergence of structural equation modeling and multilevel modeling (Edited Malcolm Williams & W. Paul Vogt) *In The SAGE Handbook of Innovation in Social Research Methods.* https://dx.doi.org/10.4135/9781446268261.n31
43. Konan, N., Durmus, E., Turkoglu, D. & Agıroglu-Bakir, A. (2018). How is smartphone addiction related to interaction anxiety of prospective teachers? *Education Science, 8,* 186. doi:10.3390/educsci8040186
44. Konan, N. & Celik, O. T. (2019). The mediator role of interaction anxiety in the relationship between social support perception and smartphone addiction. *Journal of Education and Future, 15,* 63-75.
45. Kuss, D. J. & Griffiths, M. D. (2011). Online social networking and addiction- a review of the psychological literature. *International Journal of Environmental Research and Public Health, 8*(9), 3528-3552. doi:10.3390/ijerph8093528
46. Kuss, D. J., Griffiths, M. D., Karila, L. & Billieux, J. (2014). Internet addiction: a systematic review of epidemiological research for the last decade. *Current Pharmaceutical Design, 20* (25), 4026-4052.
47. Kwon, M., Lee, J. Y., Won, W. Y., Park, J. W., Min, J. A., Hahn, C., Gu, X., Choi, J. H., & Kim, D. J. (2013). Development and validation of a smartphone addiction scale (SAS). *PLoS ONE, 8*(2), e56936.
48. Laconi, S., Tricard, N., & Chabrol, H. (2015). Differences between specific and generalized problematic Internet uses according to gender, age, time spent online and psychopathological symptoms. *Computers in Human Behavior, 48,* 236-244, http://dx.doi.org/10.1016Zj.chb.2015.02.006.
49. Leary M. R. & Kowalski, R. M. (1993). The interaction anxiousness scale: Construct and criterion-related validity. *Journal of Personality Assessment, 61* (1), 136146.

50. Lee, Y. K., Chang, C. T., Lin, Y., & Cheng, Z. H. (2014). The dark side of smartphone usage: Psychological traits, compulsive behavior and technostress. *Computer Human. Behavior, 31,* 373-383.
51. Lyvers, M., Hanigan, C. & Thorberg, F. A. (2018). Social interaction anxiety, alexithymia, and drinking motives in Australian university students. *Journal of Psychoactive Drugs, 50*(5), 402-410, doi: 10.1080/02791072.2018.1517228
52. Lopez-Fernandez, O. (2017). Short version of the Smartphone Addiction Scale adapted to Spanish and French: Towards a cross-cultural research in problematic mobile phone use. *Addictive behaviors, 64,* 275-280. http://dx.doi.org/10.1016/j.addbeh.2015.11.013
53. Mattick, R. P., & Clarke, J. C. (1998). Development and validation of measures of social phobia scrutiny fear and social interaction anxiety. *Behavior Research and Therapy, 36,* 455-470.
54. Mohammadi, S., Valinejadi, A., Saman, J. A., Karimpour, H., Kaivanfar, M. Safaeipour, M., Mohammadi, A., & Kawyannejad, R. (2018). Assessment of addiction to internet, smartphone and social networks among students of medical sciences: a cross sectional study. *Electron J Gen Med, 15* (4), em35. https://doi.org/10.29333/ejgm/85685
55. Mok, J. Y., Choi, S. W., Kim, D. J., Choi, J. S., Lee, J., Ahn, H., Choi, E. J., & Song, W. Y. (2014). Latent class analysis on internet and smartphone addiction in college students. *Neuropsychiatric Disease and Treatment 10,* 817-128. doi:10.2147/NDT.S59293.
56. Noyan, C. O., Enez-Darçın, A., Nurmedov, S., Yilmaz, O. & Dilbaz, N. (2015). Validity and reliability of the Turkish version of the smartphone addiction scale-short version among university students. *Anadolu Psikiyatri Dergisi, 16* (1), 73-81.
57. Oberst, U., Wegmann, E., Stodt, B., Brand, M., & Chamarro, A. (2017). Negative consequences from heavy social networking in adolescents: the mediating role of fear of missing out. *Journal of Adolescence, 55,* 51-60.
58. O'Reilly, M. (1996). Internet addiction: a new disorder enters the medical lexicon. *Canadian Medical Association Journal, 154*(12), 1882-1883.
59. Park, B. W., & Lee, K. C. (2011). The effect of users' characteristics and experiential factors on the compulsive usage of the smartphone. *Ubiquitous Computing and Multimedia Applications, 151,* 438-446.
60. Pierce, T. (2009). Social anxiety and technology: Face-to-face communication versus technological communication among teens. *Computers in Human Behavior, 25,* 1367-1372.

61. Przybylski, A.K., Murayama, K., DeHaan, C. R., & Gladwell, V. (2013). Motivational, emotional, and behavioral correlates of fear of missing out. *Computers in Human Behavior, 29*(4), 1841-1848.
62. Reagle, J. (2015). Following the Joneses: FOMO and conspicuous sociality. *First Monday, 20*(10). https://doi.org/10.5210/fm.v20i10.6064
63. Samaha, M., & Hawi, N. S. (2016). Relationships among smartphone addiction, stress, academic performance, and satisfaction with life. *Computers in Human Behavior, 57,* 321-325.
64. Shin, J. H., & Jang, M. (2016). Effect of group sandplay therapy to be addicted youth's addiction levels and anxiety. *Journal of Symbols & Sandplay Therapy, 7*(1), 39-55. doi:10.12964/ jsst.160002
65. Tanaka, J. S., & Huba, G. J. (1985). A fit index for covariance structure models under arbitrary GLS estimation. *British Journal of Mathematical and Statistical Psychology, 38,* 197-201.
66. Thomsen, K. R., Callesen, M. B., Hesse, M., Kvamme, T. L., Pedersen, M. M., Pedersen, M. U., & Voon, V. (2018). Impulsivity traits and addiction-related behaviors in youth. *Journal of Behavioral Addictions, 7*(2), 317-330.
67. Wegmanna, E., Oberst, U., Stodt, B., & Branda, M. (2017). Online-specific fear of missing out and Internet-use expectancies contribute to symptoms of Internet-communication disorder. *Addictive Behaviors Reports, 5,* 33-42.
68. Wolniewicz, C. A., Tiamiyu, M. F., Weeks, J. W., & Elhai, J. D. (2018). Problematic smartphone use and relations with negative affect, fear of missing out, and fear of negative and positive evaluation. *Psychiatry Research, 262,* 618-623.

Quality Assurance Frameworks Comparisons in HEIs of Pakistan and China

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Abstract

The Higher Education Commission in Pakistan and China ~~is~~ are responsible to check that all educational institutes of Pakistan comply with the Quality Assurance Framework (QAF). Work distribution, access to the digital library and the number of PhD faculty members in the institutes, are important for Higher Educational Institutes (HEIs) because they directly influence on quality of academic education and services being provided to the students. Mixed method approach is adopted. Quantitative results were obtained by carrying out survey in Pakistan while qualitative results were obtained through literature review. This research makes use of quantitative approach and investigates four different HEIs of Pakistan. The questionnaire was divided into three sections: 1) Role of work distribution; 2) access to the digital library; and 3) the number of Faculty members in the PhD faculty. A critical review was carried out for investigating the quality of HEIs in China because survey accessibility issues were faced when adopting quantitative approach. Analysis showed that most of the QAFs in Pakistan were weak in all three factors. Yet China had a better score when compared to Pakistan showing good work distribution; high number of digital libraries; and an adequate number of PhD faculty members.

Keywords: Higher Educational Institutes, Pakistan, China work distribution, access to digital library, number of PhD faculty.

Introduction

The Quality Assurance Parameters (QAPs) in the Higher Education Institutes (HEIs) are considered the base for growth within the education sector, for promoting quality education and sustaining the satisfaction level of the students. People living in different areas of Pakistan have complained that their education standards are not improving and challenges related to improving the quality assurance frameworks in educational institutes is in need of improvement. Nations such as China has improved its education system and are thereby able to attract international students from every nation. Although a number of parameters can be included in under QAPs, this paper investigates three of them, 1) Role of work distribution; 2) access to the digital library; and 3) the number of Faculty members in the PhD faculty working in different educational institutes of Pakistan. A critical review of the educational institutes in China was carried out for comparison with Pakistan.

The Higher Education Commission (HEC) in Pakistan is the governing body of educational institutes in Pakistan that aims to govern the responsibilities in this corporate sector by organising and improving various parameters within the education sector. Aslam (2018) argued that educational institutes of Pakistan heavily rely on equal distribution of workload in all the educational institutes of Pakistan because it significantly allows the management to focus on growth and increase the efficiency in the operations. It has been observed by Sukdee, Tornee and Kraiptech (2017), that HEC developed Quality Enhancement Cells (QECs), work for the development of educational institutes by monitoring the work distribution in educational institute of Pakistan (Shabbir et al., 2016).

The governance of HEIs in China is done by the State and local Councils, which monitors the facilities provided in each department. According to Liu, Hu and Huang (2019), the HEIs in China focus on many parameters in improving quality of education and some of them include, quality of work distribution, and increasing accessibility for the students. Bhayo et al., (2018) reported that the number of PhD faculty members in China have increased in the order of thousands in the last 10 years because of the special focus on increasing the quality of their classroom environment.

These QEC's developed many parameters for checking the work distribution and some of them include distribution of the workload by individually checking working hours of the staff members. Shaikh, Memon and Shah (2017) argued that some professionals in Pakistan work long hours, while some of them leave early, which depicts an unequal work distribution. In the majority of educational institutes in Pakistan, it has been observed that most of the people in HEIs of Pakistan are working hard to improve the quality of education including the HEC, but the management of HEC is unwilling to make changes in some universities (Shabbir et al., 2016). Aslam (2016) found

that most of the educational institutes of Punjab, critically suffered from the problems of distributing the workload due to the low working attitude and high interference of teachers. Therefore, it has become important for the management of HEC to incorporate new changes in the management of issues so that challenges can be incorporated in terms of elevating education standards.

Another parameter which is under investigation by Sukdee, Tornee and Kraiptech (2017), is student access to the digital library Each university management is now forcing the IT professionals to develop an online portal, where student access to their digital library is available. Research by Bhayo et al., (2018) and Liu, et al., (2019) found that universities have now started to give students access to their digital library because it creates an environment of researching and opportunities to learn the concepts of new research techniques. This paper examines Pakistani and Chinese universities not using the online portal for the development of new and improved learning atmosphere to improve quality in HEIs.

The last factor under investigation in this study is the number of PhD teachers working in educational institutes of Pakistan and China. According to Herani, Mugheri and Advani (2015), if the number of PhD teachers in a university is high, it becomes easier for the management of that educational institute to elevate quality of higher education and increase positive reviews of the students for their teachers. Since the development of HEC in Pakistan, it has been observed that top management has set criteria each university has to follow in terms of the minimum number of PhD teachers an educational institute must contain (Herani, Mugheri & Advani, 2015). While in China, PhD faculty members are hired from international universities so that best people can be on staff. Not many studies have tried to carry out comparative analysis on these quality parameters in educational institute of Pakistan and China therefore, this study could make a significant contributions to the limited literature in this area.

Pakistan's education standard is rising, because the management of HEC has started to focus on the management of quality parameters by raising the number of quality factors in the institutes, to make the education department of Pakistan sustainable and meeting the international standards. Mohsin, Mohsin and Rasheed (2016) supported the statement that not many educational institutes in the Pakistan HE sector are focusing on equal work distribution nor making the changes in workflow. Due to this reason, it is important to evaluate the reasons behind this lack of focus on workload management in educational institutes.

The quality of educational institutes in China depends upon the facilities they provide to their students, in order to improve quality of education and to increase their interest in scientific research. According to

Bhayo et al., (2018) student access to a digital library is also considered necessary, because it elevates the education standards, and it is the responsibility of educational institutes management in China to check whether students have access to the digital library through an online portal. Only a few studies were found on the internet in China which investigated, whether universities are providing access to digital library (Sukdee, Tornee & Kraiptech 2017; Viraiyan, Kamalanabhan & Keshwar, 2016). Therefore, this paper investigates, whether educational institutes are providing the required support to their students through access to their digital library.

Shabbir et al., (2016) reported that only a few educational institutes have started to hire the adequate number of PhD teachers, which highlights a major research gap in Pakistan. It has been observed that PhD teachers in educational institutes of Pakistan have started to focus on the development of new and improved changes, which include hiring of PhD teachers (Herani, Mugheri & Advani, 2015). However, this is quite challenging for small institutes, as they do not have the required revenues to meet salary expenses of these PhD teachers. Gao et al., (2019) reported that in China many PhD teachers were recently hired with a starting salary of a 100k Dollars per month on average (Zhou, 2019).

Review of literature

Shaikh, et.al., (2017) argued that the quality of educational institutes in Pakistan depends upon a number of parameters and one of them is the role of equal work distribution in educational institutes. They found that 50% of educational institutions or less are following the rule of equal work distribution. Aslam (2016) wrote that a collaborative working environment is a proven method for producing stronger academic achievement, and it is very challenging for HEIs to implement them. Some of them do not have adequate resources, while some of them are unwilling to implement it. Therefore, it is important to look into the educational institutes' performances and their willingness to divide the work equally among their workers.

In studies presented in this paragraph, it is believed that equal work distribution is not possible in educational institutes because it creates challenges for the management to individually check performance of each professional (Shahid, Wahab & Ahmed; 2016; Sukdee, Tornee & Kraiptech, 2017). Shahid, Wahab and Ahmed (2016) found that people working in educational institutes were not willing to divide their work role due to laziness. Additionally, university management was not having the required resources and tools for checking and building a new working environment. Sukdee, Tornee and Kraiptech (2017) wrote that it was due to the poor role played by the Commission. That they only evaluated the work role distribution in big educational institutes of Pakistan, whilst smaller institutes remained

unchecked. Therefore, it is important to identify the need of carrying out a check and balance on the activities, because it is a difficult task for the HEC to go and check work distribution in each educational institute.

Another parameter included in the QAF produced by HEC, was student ~~is~~ access to a digital library. According to Hazelkorn, Coates and McCormick (2018), it is the responsibility of management to ensure that each student is provided with access to digital library and supported with latest editions of book and scholarly articles for making research easier for them. Khan and Kamran (2017) added that access to digital library was necessary for students because it improved their researching skills and elevated their interest in reading. However, Sukdee, Tornee and Kraiptech (2017) wrote that not many educational institutes focussed on the development of digital library access, and most students faced issues in carrying out their research. Therefore, it is important to elevate the performance of the graduates by increasing their researching capabilities and improving their writing abilities.

It has been observed that digital libraries play a crucial part in lifting the education level of a university (Viraiyan, Kamalanabhan, & Keshwar, 2016; Hina and Ajmal, 2016). Students can easily access their textbooks online and access them without physically going to a university library. Viraiyan, Kamalanabhan and Keshwar (2016) wrote that this increases quality of education because the management of the educational institute can restrict students to deadlines and reduce unnecessary excuses for not completing their assignments or research reports. However, Hina and Ajmal (2016) reported that universities did not possess the required expertise through which they could develop an internet portal and produce the desired results for ~~the~~ management. Hence it is necessary for the management to hire professional software engineers who can work on professional software packages to create an online portal.

An educational institute should focus on hiring of PhD faculty as much as it can, because it can allow the management to increase quality of classroom environment and ultimately the learning among the students (Hina & Ajmal, 2016; Baig, Abrar Ali & Ahmed, 2015). In Pakistan, the management of HEC understands this, and recently it introduced new challenges for the development of educational institutes, which includes a minimum number of PhD faculty members to be hired by the educational institutes. However, ranking of Pakistani institutes shows that not many PhD teachers might be present in the institutes, due to the low focus of management as reported by Hina and Ajmal (2016). Ajmal (2017) wrote that low number of PhD faculty members in educational institutes of Pakistan was due to the fact that most universities could not afford them. Furthermore, it was observed that most students undertook their PhD degree from outside of Pakistan due to the shortage of PhD graduates in Pakistani universities (Baig, Abrar Ali &

Ahmed, 2015). Hence, it can be argued that most of the educational institutes should be given the support by the management of HEC, so they can focus on increasing the investment on PhD faculty, and can improve quality of academic education.

Studies by Pornphol and Chittayasothorn (2017) and John and Fanghanel (2015) explored the context of other educational institutes located outside of Pakistan. Pornphol and Chittayasothorn's (2017) research was based on new developments in educational institutes of Qatar. They reported that educational institutes in Qatar have started to report on the development of new educational institutes, which contain 50% of PhD faculty members. According to their results, the value of graduates in Qatar had doubled in the last decade, due to these small changes they gave on the development of educational institutes. John and Fanghanel (2015) reported that if PhD faculty members were hired by the educational institutes that quality of education will definitely improve. PhD level teachers challenge their students by using their personal experience and challenge their students to think out of the box (John & Fanghanel, 2015). Therefore, it is the responsibility of university management to ensure that at least 50% of the faculty members have studied to PhD level in their education.

Literature gap

There is not a single investigation which evaluates the quality level of the educational institutes in both Pakistan and China. Subhani, Osman and Niaz (2017) argued that there is a need to reduce the quality gap among educational institutes of Pakistan because no study was found analysing all the three parameters. This study will investigate all these three parameters by observing their importance in universities. Since no investigation has been carried out on a similar topic in the last five years, it is hard to predict the quality of academic education based on these three parameters. It is important to evaluate, whether quality parameters produced by HEIs in both China and Pakistan for elevating academic quality through these three variables are producing desired results or not.

Hypotheses

Based on the investigations made in the literature review above, this research paper investigates the following hypotheses:

H1 – Role of work distribution in improving quality education is low in Higher Educational Institutes (HEIs) of Pakistan as compared to China.

H2 – Access to digital library in improving quality education is low in HEIs of Pakistan as compared to China.

H3 – Number of PhD faculty members in educational institutes of Pakistan is low as compared to China and contributing to low quality among the educational institutes.

Research question

Based on the above literature review, this research works on the following questions:

1. What is the role of work distribution in improving quality education in HEIs of Pakistan and China?
2. Do the students are provided with access to digital libraries in HEIs of Pakistan and China?
3. Is the number of PhD faculty members in HEIs of China are more as compared to Pakistan?

Methods

This study analysed the findings through quantitative methodology, specifically using survey methodology and developed a questionnaire based on 5-point Likert scale methodology (Kumar, 2019). Data collection in China was collected through a critical literature review approach (Kumar, 2019). The reason to select this approach was because physical data in China was difficult to obtain. In addition, data related to China was readily available on internet which made it easier for the investigator to collect and compare it. The questionnaire was distributed online and was segmented into 3 three sections, namely work distribution, student access to a digital library, and the number of PhD faculty members in educational institutes of Pakistan. The data were collected from 200 students from four different universities of Pakistan, namely Pakistan Air Force- Karachi Institute of Economics and Technology (PAF-KIET), FAST University, Karachi, Iqra University (IU), Karachi and Government College University (GC), Faisalabad. The questionnaire comprised of nine questions in total (three in each section), and the data were analysed on SPSS Version 21.

The 5-point Likert scale questionnaire comprised of five options: strongly agree, agree, neutral, disagree and strongly disagree. The students were enrolled in the Bachelors, Masters and PhD degree programs in engineering and management fields Research of their respective universities. The hypothesis was accepted if the percentage of 'strongly agree' or 'agree' parenthesis needed was more than strongly disagreed and disagreed. Some ethical considerations were also undertaken in the investigation. E.g. only the students willing to participate in the survey were selected for the investigation. In addition, students who completely filled the questionnaire were analysed in the results of the next section.

Results and discussion

After carrying out the investigation in this study, it is necessary to segment the results comprehensively by presenting the results in an appropriate form. This research made use of SPSS 21.0 software for running the validity and reliability analysis once collecting the results through the questionnaire. The value of Cronbach Alpha came out to be 0.889, indicating that data collected has good reliability. In addition, the value of KOM was also observed to be 0.772 which lies between 0.7 and 0.8, and indicating that questionnaire was valid.

Work distribution in HEIs of Pakistan (first hypothesis)

The first statement of the questionnaire can be observed below:

- The work role distribution in different departments of Higher Educational Institutes is not done adequately.

The results were obtained in the following fashion:

Table 1 Statement 1 results
Statement 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	89	44.5	44.5	44.5
	Agree	72	36.0	36.0	80.5
	Neutral	8	4.0	4.0	84.5
	Disagree	21	10.5	10.5	95.0
	Strongly Disagree	10	5.0	5.0	100.0
	Total	200	100.0	100.0	

The results show that most of the students were not satisfied with the work role distribution in different departments of their educational institutes. Of the 200 candidates, 44.5% strongly agreed, 36% agreed, 4% remained neutral, 10.5% disagreed and 5% strongly disagreed. Based on these findings, the management of these educational institutes needs to focus on equal work distribution, since the students believe that it is not done in an adequate manner.

- There is an important role of equal work distribution in improving quality education in educational institutes of Pakistan.

Table 2 statement 2 results

Statement 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	87	43.5	43.5	43.5
	Agree	67	33.5	33.5	77.0
	Neutral	8	4.0	4.0	81.0
	Disagree	25	12.5	12.5	93.5
	Strongly Disagree	13	6.5	6.5	100.0
	Total	200	100.0	100.0	

The observations made in the questionnaire showed that the majority of the respondents rated equal work distribution as an important factor in improving quality education in educational institutes. 43.5% strongly disagree, 33.5% agree, 4.0% remained neutral, 12.5% disagreed while 6.5% strongly disagreed. Based on these observations made, it can be said that the management of the four institutes needs to focus on equal workload distribution to elevate quality education in the educational institutes.

The third statement in the first part of the questionnaire was:

- It is considered necessary to divide work equally in order to improve quality of education in HEIs.

Table 3 Statement 3 results

Statement 3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	85	42.5	42.5	42.5
	Agree	67	33.5	33.5	76.0
	Neutral	6	3.0	3.0	79.0
	Disagree	28	14.0	14.0	93.0
	Strongly Disagree	14	7.0	7.0	100.0
	Total	200	100.0	100.0	

The results obtained showed that role of work distribution was considered necessary when it comes to improving the quality of education in HEIs. The statement presented revealed positive responses because it showed

that 42.5% strongly agree, 33.5% agree, 3% remained neutral, 14% disagreed and 7% strongly disagreed. The statements observed, therefore, show that it is necessary to focus on equal work distribution in educational institutes of Pakistan.

Comparison of work distribution in educational institutes of China with Pakistan

The results obtained highlight the fact that educational institutes of Pakistan in terms of work distribution are weak. If review of the work distribution in China was done, it has been observed by Yang (2019) and Guo, Huang and Zhang (2019) that it is quite strong. They investigated various departments of universities in China and reported that no work distribution issues were found. They also reported that salaries paid to management team members were quite high as compared to other educational institutes around the world. Zhang Bai and Qin (2018) wrote that some international management non-native team members ~~()~~ working in educational institutes of China, were not paid as high as compared to the Chinese natives. However, no other study was found supporting or contradicting with this statement.

Mastoi and Saengkrod (2019) and Zhao, Beckett and Wang (2017) reported that a top-down structure was followed in most of the educational institutes of China. This allowed for better infrastructure and an increased balance of workload. Due to this reason, Wang, Whitehead and Bayes (2016) also supported the work distribution in China and argued that other nations can take it as a role model for them.

Based on the observations, this research accepts the below-given hypothesis:

H1 – Role of work distribution in improving quality education is low in Higher Educational Institutes (HEIs) of Pakistan as compared to China – ACCEPTED

Access to digital library (second hypothesis)

The first statement

- The access to digital libraries in your Higher Educational Institutes is not provided.

Table 4 Statement 4 results
Statement 4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	76	38.0	38.0	38.0
	Agree	71	35.5	35.5	73.5
	Neutral	7	3.5	3.5	77.0
	Disagree	32	16.0	16.0	93.0
	Strongly Disagree	14	7.0	7.0	100.0
	Total	200	100.0	100.0	

The results were not in favour of the educational institute, because most of the respondents did not have access to digital library. Out of the 200 students, 38% strongly agreed, 35.5% agreed, 3.5% remained neutral, 16% disagreed, and 7% strongly disagreed with the statement. Based on the observations made, it can be argued that access to digital library is not given to the students at least in the investigated educational institutes of Pakistan.

The second statement for carrying out the investigation of this hypothesis was:

- There is an important role of digital library access in improving quality education in educational institutes of Pakistan.

Table 5 Statement 5 results
Statement 5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	72	36.0	36.0	36.0
	Agree	71	35.5	35.5	71.5
	Neutral	7	3.5	3.5	75.0
	Disagree	34	17.0	17.0	92.0
	Strongly Disagree	16	8.0	8.0	100.0
	Total	200	100.0	100.0	

The results obtained show that digital library access was considered the most necessary when it comes to analysing the quality of educational institutes. Out of the 200 respondents, 36% strongly agree, 35.5% agree, 3.5% remained neutral, 17% disagree and 8% strongly disagreed. Therefore, the

students rated access to digital library as an important factor when elevating the quality of education.

The third statement included in the questionnaire was:

- It is considered necessary to provide digital library access in order to improve quality of education in HEIs.

Table 6 Statement 6 results

Statement 6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	69	34.5	34.5	34.5
	Agree	73	36.5	36.5	71.0
	Neutral	5	2.5	2.5	73.5
	Disagree	34	17.0	17.0	90.5
	Strongly Disagree	19	9.5	9.5	100.0
	Total	200	100.0	100.0	

The results obtained show that more than half the students rated access to digital library as one of the necessary components for elevating quality of education. Most of the students said that it is necessary to include digital library access in educational institutes. In response to the statement, 34.5% strongly agree, 36.5% agree, 2.5% remained neutral, 17% disagreed, and 9.5% strongly disagreed. Therefore, the management needs to focus on the provision of new and improved digital library access for the students in order to remove barriers to quality education.

Critical comparison of results with China

If the above results are compared with China, various conclusions can be drawn. According to the results obtained the access to digital libraries in Pakistan is weak. While research from Liu, et al., (2019), reported that digital library access in China was available in more than 80% universities making it easier for students to access digital libraries at their homes. Supporting the statement, Bhayo et al., (2018) wrote that digital library access is available to all the students in various provinces of China except for a few new universities where developments are taking place. Hence it can be said that access to digital libraries in China is readily available, and in better format as compared to Pakistan.

If the role of digital libraries in China is evaluated and compared with Pakistan, it is argued by Gao et al., (2019) that digital libraries in China were mostly used for accessing course content from the websites, and not needing

to consulting physical libraries. Zhou (2019) wrote that digital libraries in China were mostly to create research interests among the students and make their academic career hassle-free. But with an increase in digital libraries, students have started to avoid physical libraries and rate of students significantly decreased. Nonetheless, keeping that aside, the access to digital library in China is high as compared to Pakistan, which resulted in an increment in quality education. Therefore, it can be argued that performance of educational institutes in China is high as compared to Pakistan.

The results observed accepts the below-given hypothesis:

H2 – Access to digital library in improving quality education is low in Higher Educational Institutes (HEIs) of Pakistan as compared to Pakistan - ACCEPTED

Number of PhD faculty members in educational institutes of Pakistan (3rd hypothesis)

This hypothesis was checked to evaluate whether number of PhD faculty members in educational institutes of Pakistan are present in adequate number and whether it contributes to the development of quality environment in the institutes. The first statement inquired by the respondents was:

- The number of PhD faculty in your Higher Educational Institutes is inadequate

Table 7 Statement 7 results

Statement 7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	70	35.0	35.0	35.0
	Agree	70	35.0	35.0	70.0
	Neutral	4	2.0	2.0	72.0
	Disagree	36	18.0	18.0	90.0
	Strongly Disagree	20	10.0	10.0	100.0
	Total	200	100.0	100.0	

35% of the respondents strongly agreed with the statement that number of PhD faculty members in educational institute is inadequate. 35% strongly agree, 35% agree, 2% remained neutral, 18% disagreed, and 10% strongly disagreed with the statement. Hence, it can be said that number of PhD faculty in 4 investigated institutes is inadequate and contributing to low quality of the educational institute.

The second statement inquired of the respondents was:

- There is an important role of PhD faculty member in improving quality education in educational institutes of Pakistan.

Table 8 Statement 8 results
Statement 8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	67	33.5	33.5	33.5
	Agree	71	35.5	35.5	69.0
	Neutral	5	2.5	2.5	71.5
	Disagree	34	17.0	17.0	88.5
	Strongly Disagree	23	11.5	11.5	100.0
	Total	200	100.0	100.0	

The results obtained show that 33.5% strongly agreed, 35.5% agreed, 2.5% remained neutral, 17% disagreed while 11.5% strongly disagreed with the statement. Based on the observations made, it can be said that there is an important role of PhD faculty in improving quality of education in educational institutes. However, the responses in the last statement show that number of PhD faculty is severely less in educational institutes.

The third statement of the questionnaire was:

- It is considered necessary to increase PhD faulty in order to improve quality of education in HEIs.

The answers were given in the following fashion:

Table 9 Statement 9 results
Statement 9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	70	35.0	35.0	35.0
	Agree	68	34.0	34.0	69.0
	Neutral	6	3.0	3.0	72.0
	Disagree	33	16.5	16.5	88.5
	Strongly Disagree	23	11.5	11.5	100.0
	Total	200	100.0	100.0	

The results obtained show that PhD faculty members should be increased in educational institutes of Pakistan because it is rated necessary by the students. Out of 200 respondents, 35% strongly agreed, 34% agree, 6% marked neutral, 16.5% disagree and 11.5% strongly disagree. Therefore, it can be argued that number of PhD faculty members should be increased by the management of each university.

Critical comparison of number of PhD faculty members in China with Pakistan

According to the findings of this investigation, a number of PhD faculty members in Pakistan were very low as reported by various respondents. Whilst in higher educational institutes of China, it has been observed that Zhou (2019) reported some positive findings. According to their results obtained, it has been observed that number of PhD faculty members in each university is at least 20% more as compared to Masters PhD. Supporting the results, Imran et al., (2019) wrote that China's higher education standards recently improved, and because of that reason, the management of educational institutes saw growth in research by 20% between 2015-2017. Based on the results obtained, it can be said that the quality of higher educational institutes in China is much higher as compared to Pakistan since the number of PhD faculty is significantly high.

It is believed that the quality of education cannot be improved without hiring of an adequate number of PhD faculty members. However, when the results obtained are compared with China, to what?, it has been reported by Ma (2020) that education quality in China is kept on top priority while hiring of PhD faculty members which ~~are~~ is not the case in Pakistan. Carrying out a survey in various educational institutes of China, Chen and Zhang (2018) reported that China is much better in hiring of PhD faculty from other nations and paying them well. Due to this reason, a major increment has been observed in the development of educational institutes in China along with research contributions.

Based on the results obtained, the following hypothesis is accepted in this research:

H3 – Number of PhD faculty members in educational institutes of Pakistan is low as compared to China and contributing to low quality among the educational institutes – ACCEPTED

Conclusion

Quality of educational institutes depends on a number of factors, and the support they provide to their students for carrying out the management activities and increasing their interest in practical and theoretical learning. Out of many Quality Assurance Parameters, this research investigated three of them; equal work distribution, access to digital library and number of PhD faculty members. Based on the assessment of research questions, and hypotheses results, it can be argued that students studying in the four investigated institutes of Pakistan were not happy with work distribution, neither happy with number of PhD faculty nor provided with access to digital library. The survey results show that not many students supported the statement that work was distributed equally in their institute. A comparison with China showed that educational institutes were very strong in terms of work distribution in educational institutes. Most of them followed a top down hierarchy, and the salaries of management team members were very high.

The second hypothesis was to check whether students in Pakistan and China were provided with access to a digital library. A high majority of students in Pakistan argued that performance of educational institutes declined because access to digital library was not available in some institutes. Conversely,-HEIs in China ensured that student access to a digital library was compulsory and provided.

The third hypothesis and question were linked with the findings, whether the number of PhD faculty in investigated institutes was adequate and whether it was better than China. The results went against the institutes of Pakistan, because students said that their institute did not have an adequate number of PhD faculty. While scholars who investigated Chinese HEIs argued that PhD faculty members were high, and Masters students were low in these educational institutes. However, students in Pakistan said that educational institutes must be focusing on increasing number of PhD faculty members because it contributes to an increment of quality education platform. Overall, it can be concluded that educational institutes of Pakistan currently suffer from the problems of work distribution, providing access to digital library and hiring PhD faculty, which is why their quality of education is not as good as Chinese universities.

Significance

This research is unique because, when searched on internet no investigation was found performing comparison on these three parameters between China and Pakistan. Furthermore, this research provides some significant insights as to how quality of educational institutes can improve. The results will assist the university management of Pakistan to focus on their

weaknesses, and ensure that quality assurance requirements followed in China are met.

Limitations

This study is limited to comparing two nations only which are China and Pakistan, and might or might not work for other countries. This study did not adopt quantitative methodology for investigation in China, which can decline reliability of results. In addition, sample size was small as compared to number of students studying in different universities of Pakistan.

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References:

1. Ajmal, M. (2017). Implementation of Quality Assurance and Accreditation Policy in Open Distance Learning Teacher Education Programs in Pakistan. *JOURNAL OF CONTEMPORARY TEACHER EDUCATION*, 67, 1-9.
2. Aslam, M. I. (2016). *Validation of the Higher Education Commission Quality Assurance Indicators used for Self-Assessment Mechanism at Universities in Punjab Province* (Doctoral dissertation, University of the Punjab, Lahore).
3. Baig, S. A., Abrar, M., Ali, A., & Ahmad, M. (2015). Implementation of TQM on higher education in Pakistan. *Quality & Quantity*, *49*(1), 51-56. https://doi.org/10.1007/s11135-013-9973-7
4. Bhayo, N. H., Yuyou, Q., Zeng, W., & Dong, J. (2018). Role of District Education Officials in Quality Education in Nanguan and Shikarpur Districts: A Comparative Study Between China and Pakistan. *language*, *9*(26).
5. Chen, Y., & Zhang, F. (2018). Fiscal Expenditure and Education Quality in China: A Regional Heterogeneity Analysis. *European Journal of Marketing and Economics*, *1*(3), 44-52. https://dx.doi.org/10.26417/ejme.v1i3.p44-52
6. Gao, P., Song, Y., Li, X., & Lin, H. (2019, August). Quality Guarantee of Graduate Education in China: A Bibliometric Study. In *2019 5th International Conference on Social Science and Higher Education (ICSSHE 2019)*. Atlantis Press. https://dx.doi.org/10.2991/icsshe-19.2019.226

7. Guo, L., Huang, J., & Zhang, Y. (2019). Education Development in China: Education Return, Quality, and Equity. *Sustainability*, *11*(13), 3750. https://doi.org/10.3390/su11133750
8. Hazelkorn, E., Coates, H., & McCormick, A. C. (Eds.). (2018). *Research handbook on quality, performance and accountability in higher education*. Edward Elgar Publishing.
9. Herani, G. M., Mugheri, M. S., & Advani, A. (2015). Measuring the endeavors' Impact of Quality Enhancement Cell on Quality of Higher Education system in Pakistan. A case of Private and Public Universities in Pakistan. *Journal of Management for Global Sustainable Development*, *1*(1), 37-39.
10. Hina, K., & Ajmal, M. (2016). Quality Assurance and Enhancement Mechanism in Tertiary Education of Pakistan: Recent Status, Issues and Expectations. *Pakistan Journal of Education*, *33*(1), 1-11. http://dx.doi.org/10.30971/pje.v33i1.13
11. Imran, M., Omar, T. K., Allah, A. A. F., & El All, W. A. A. (2019). The Impact of Higher Education Quality on Student's Satisfaction: Empirical Evidence from PR China. *Pacific International Journal*, *2*(1), 26-35.
12. John, P., & Fanghanel, J. (Eds.). (2015). *Dimensions of marketisation in higher education*. Routledge.
13. Khan, F. U., & Kamran, A. (2017, July). Impact of Management Information Systems Techniques on Quality Enhancement Cell's Report for Higher Education Commission of Pakistan. In *International Conference on Management Science and Engineering Management* (pp. 367-381). Springer, Cham. https://doi.org/10.1007/978-3-319-59280-0_30
14. Kumar, R. (2019). *Research methodology: A step-by-step guide for beginners*. Sage Publications Limited.
15. Liu, X., Hu, B., & Huang, J. H. (2019). The Quality of Play Center Activities of Early Childhood Education in China. *English Language Teaching*, *12*(8), 95-105.
16. Ma, J. (2020). Research on Higher Education Quality Assurance in China During the Popularization. *Higher Education Research*, *5*(1), 1. https://doi.org/10.11648/j.her.20200501.11
17. Mastoi, A. G., & Saengkrod, L. X. W. (2019). Higher Education Service Quality based on Students' Satisfaction in People's Republic of China. *Higher Education*, *10*(6). https://doi.org/10.7176/jep%2F10-6-15
18. Mohsin, M. S., Mohsin, M. N., & Rasheed, M. (2016). ANALYSIS OF HEC QUALITY ASSURANCE MEASURES IN HIGHER EDUCATION INSTITUTIONS OF THE PUNJAB: IMPLICATION

FOR TERTIARY EDUCATION IN AGRICULTURE AND PROFESSIONAL DISCIPLINES. *Journal of Agricultural Research (03681157), 54*(3), 12-19.

19. Pornphol, P., & Chittayasothorn, S. (2017). A Case-Based Quality Assurance System for Higher Education. *International Journal of Culture and History*, *3*(1), 7-11. https://doi.org/ 10.18178/ijch.2017.3.1.073
20. Shabbir, M., Khalid, M. I., Bakhsh, K., Mohsin, M. N., Rasool, S., & Mohsin, M. S. (2016). Improving Professional Development System through Quality Assurance Practices in the Universities of Pakistan. *International Education Studies, 9*(1), 141-147.
21. Shahid, H., Wahab, Z., & Ahmed, S. A. (2016). Factor Analysis to Explore the Indicators of Quality Assurance Mechanism on Higher Educational Institutions in Pakistan. *Journal of Basic and Applied Sciences*, *12*, 146-154.
22. Shaikh, S., Memon, Z. A., & Shah, A. A. (2017). Adoption and impact of quality assurance processes in higher education institutions of Jamshoro Education City. *Grassroots*, *50*(3), 1-9.
23. Subhani, M. I., Osman, A., & Niaz, M. I. (2017). ROLE OF HIGHER EDUCATION COMMISSION (HEC) IN PROMOTING RESEARCH OUTPUT IN PAKISTAN. *The EUrASEANs: journal on global socio-economic dynamics, 3* (4), 93-100. https://doi.org/10.35678
24. Sukdee, T., Tornee, S., & Kraipetch, C. (2017). Factor Analysis of Key Success Indicators in Curriculum Quality Assurance Operation for Bachelor's Degree in Physical Education. *International Journal of Higher Education*, *6*(3), 109-115.
25. Viraiyan, T., Kamalanabhan, T. J., & Keshwar, S. A. (2016). An analysis of higher education service quality in Mauritius using HESQUAL. *International Journal of Business Research*, *16*(2), 89-104. dx.doi.org/10.18374/IJBR-16-2.7
26. Wang, C. C., Whitehead, L., & Bayes, S. (2016). Nursing education in China: Meeting the global demand for quality healthcare. *International journal of nursing sciences*, *3*(1), 131-136. https://doi.org/10.1016/j.ijnss.2016.02.009
27. Yang, L. (2019, April). The Value Orientation System Construction and Development Direction of Higher Education Quality Assurance in China. In *1st International Symposium on Education, Culture and Social Sciences (ECSS 2019)*. Atlantis Press. https://dx.doi.org/10.2991/ecss-19.2019.36
28. Ying, S., & Yan, L. (2018). THE UTILIZATION OF INFORMATION TECHNOLOGY IN HIGHER EDUCATION

QUALITY ASSURANCE IN CHINA. In *Capacity Building for Next Generation Quality Assurance in Higher Education* (pp. 94-98).

29. Zhang, L. N., Bai, D. Q., & Qin, J. (2018, May). An Investigation into Policies to Improve the Quality of Basic Education in China-------A Case Study of No. 128 Middle School in Shenyang City. In *4th Annual International Conference on Management, Economics and Social Development (ICMESD 2018)*. Atlantis Press. https://dx.doi.org/10.2991/icmesd-18.2018.81
30. Zhao, J., Beckett, G. H., & Wang, L. L. (2017). Evaluating the research quality of education journals in China: Implications for increasing global impact in peripheral countries. *Review of Educational Research*, *87*(3), 583-618. https://doi.org/10.3102%2F0034654317690813
31. Zhou, T. (2019). Drama Education Differences Between China and Western Countries. *Asian Education Studies*, *4*(2), 30. https://doi.org/10.20849/aes.v4i2.657

Analysing Sport Spectator Identification Levels of University Students with Their Favorite Team

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Abstract

The aim of the study is to determine the sport spectator identification level of the sport students with the teams they support. A total of 225 students at Acibadem University, 74.7% women and 25.3% men, participated in the study voluntarily. The "Sport Spectator Identification Scale" developed by Wann and Branscombe (1993) was administered as the data collection instrument of the study. The validity and reliability study in Turkish was completed by Günay and Tiryaki (2003). The scale is in Likert-type which is scored between 1 and 8 and has a single dimension consisting of 7 items. Scores were represented as 1= not important, and 8= very important, in which high scores signified high identification levels. The internal consistency of the scale (Cronbach Alpha) was .93. Shapiro Wilk test was applied to identify the normal distribution of the data and a non-normal distribution was found. In the analysis of the data, Mann Whitney U test was applied for gender, and Kruskal Wallis test was used for age, monthly income, class and teams they support. To the research results, while there was a significant difference in the identification level of university students with the teams they support, in terms of gender, class, teams and matches they follow, no meaningful difference was found for age and monthly income variables.

Keywords: Team identification, sport fans, university students.

Introduction

In a Latin root, sport word is derived from the word *disporte* which means separating from each other and scattering. In time, the word has transformed and gained its final form as sport (Talimciler, 2010). If sport is defined as physical activities based on institutionalized competition spirit, the components of institutionalization should be explained. The rules in sport are

specified and shaped by official institutions rather than by the expressions of random individuals, personal interests, hobbies or certain instantaneous approaches (Tükenmez, 2011).

When and how sport began has always been a topic of discussion. Sport scientists divide ancient sportive activities into two categories as 'game-based' and 'war-based' sport. In this sense, it is likely to say that the roots of sport date back to the period of the first runner, jumper or wrestler. Sport historians deal with sport as a work-based activity rather than a game, and consider spear-throwing as the first sportive activity in history (Çakır, 2017).

Sport can be defined as a process in which mankind combines skills and war methods against nature -with or without tools- and, it is used for playing and distracting from work, individually or collectively (Fişek, 1998). The first sports activity organizations in history can be seen in Ancient Greece. And, the first recorded Olympic Games were held in 776 BC for Zeus (Durgun, 2007).

Sport is a platform that the entire world utilizes through gathering individuals from different social backgrounds and enabling billions of people to meet in the same environment (Donuk, 2016). It is possible to mention about numerous definitions of sport. When the common aspects of all the definitions are considered, sport is an activity or phenomenon that requires both physical power and skill, is performed on the basis of certain rules and ensures socializing. As the amount of leisure time today has increased, the motive to move has emerged. Sport is acknowledged as an indicator that affects all the aspects of social life and a sign of the welfare of the individuals (Yetim, 2000).

Sport fans are the individuals who support sports, athletes or teams and follow the games. Sport spectator represents the individuals who follow, listen and watch sport events and games (Wann, 1997). Sport spectators act based on winning or losing in a game. They have a high sense of belonging feeling for the team or sport player. Participation in sport takes place in two ways, as active and passive. Active participation refers to the direct involvement of individuals to a specific sport branch. However, passive participation stands for the case in which an individual takes the spectator role in a sport game. The researchers stated that being a sport spectator is a passive participation and equal to laziness, as it is not comparable to active participation (Jacobson, 2003). The popularization of sport and its practice by the larger audiences have also contributes the productions of various sport equipment. Specifically, the increasing number of spectators in professional competitions and the ticket prices have lead the sport industry to be an independent sector (Çakır, 2017).

Team identification concept can be explained with spectators' psychological attachment to a team. An individual becomes happy if the supported team wins, or vice versa (Güllü and Güçlü, 2006). In terms of social relationships, identification is the sense of integration or belonging to a certain

team (Parker, 2007). Spectators see themselves as a part of their team. In recent years, individuals' psychological attachment to a team has drawn the attention of the sport scientists (Wann and Branscombe, 1993; Wann et al., 2001). Additionally, commitment to a team which is of great importance for sport marketers plays a direct or indirect role on sport consumption through participation to team events and purchasing products (Fisher, 1998; Kwonand Armstrong, 2006; Madrigal, 2000; Matsuoka et al., 2003; Theodorakis et al., 2009; Wakefield, 1995). The fans do their best to support their team by participating in group activities and acting in unison. These behaviors are thought to make sport spectator different from others. Thus, a higher number of sport spectators reinforce the strength of the team (Demirkan, 1991).

An identity acquisition or identification through participating in a group activity is of positive effects on the individual. Identification with society can result in such outcomes. The disappointed individuals can find the chance to change themselves by participating in a group (Hoffer, 2007). Within this context, this study aims to analyze the identification level of university students with their teams based on certain demographic variables

Methods and Findings

The study examines university students' identification levels with the sport teams they support. The study sample consisted of 168 female (74.7%) and 57 male (25.3%) students between 16-28 years old at the undergraduate level at Acıbadem University. The Participants were selected and participated in the research on random and a voluntary basis. The data collection instruments were designated as *Personal Information Form* with gender, age, monthly income, class, the favorite team and watching game status variables and the *Sport Spectator Identification Scale - SSIS* which was developed by Wann and Branscombe (1993). The validity and reliability, and translation studies of the instrument were conducted by Güney and Tiryaki (2003). It is a Likert-type scale scored between 1 and 8 points, and consists of 1 dimension and 7 items. The scores are represented between 1 and 8- 1= not important, I don't like it, 8= very important, I like it- and high scores signified high identification levels. IBM Statistics 25.0 package program was used in data analysis. The internal consistency of the instrument (Cronbach Alpha) was .93. Shapiro Wilk test was applied to determine the normal distribution of the data, and to the test results, a non-normal distribution was found. Hence, Mann-Whitney U and Kruskal Wallis tests were applied.

Table 1 The distribution of the participants' personal information

Variables		**N**	**%**
Gender	**Female**	168	74,7
	Male	57	25,3
Age	**16-18 year-olds**	57	25,3
	19-21 year-olds	133	59,1
	22-24 year-olds	19	8,4
	25-27 year-olds	6	2,7
	28 years and-older	10	4,4
Monthly Income	**0-500 TL**	84	37,3
	501-1000 TL	76	33,8
	1001-1500 TL	36	16,0
	1501-2000 TL	9	4,0
	2001 TL and more	20	8,9
Grades	**1st Grade**	132	58,7
	2nd Grade	79	35,1
	3rd Grade	9	4,0
	4th Grade	5	2,2
The Supported Team	**Beşiktaş**	39	17,3
	Fenerbahçe	88	39,1
	Galatasaray	82	36,4
	Trabzonspor	4	1,8
	Other	12	5,3
Following the Matches	**Follow Regularly**	54	24,0
	Follow Sometimes	99	44,0
	Do not Follow	72	32,0
	Total	**225**	**100**

Table 1 presents the statistical findings related to the personal information of the participants. According to the analysis, it was concluded that 74.7% were **"**Female**"**, 59.1% were between **"**19-21 year-olds**"**, 37.3% had **"**0-500TL**"** monthly income, 93.3% attended to a **"**Private**"** university, 58.7% were **"**1st grade**"** students, 36.4% were **"**Galatasaray**"** fans and, 44.0% **"**Sometimes**"** followed the games.

Table 2 The distribution of participants' identification level

Scale	Mean	Sd	Min.	Max.	N
SSIS Total Scores	30.90	14.72	7.00	56.00	225

Table 2 shows the total scores of **"**Sport Spectator Identification Scale**"**. The study included 225 participants in which the minimum score was **"**7**"** and the maximum score was **"**56**"**.

Table 3 The score distribution for the gender variable

Scale	Gender	N	Mean Rank	U	P
	Female	168	153.11		
SSIS	Male	57	99.39	2502.000	**.000***

*p<0.05

The results of **"**Mann-Whitney U**"** test that was administered to reveal whether sport spectators possesed different identification levels for the gender variable are shown in Table 3. According to test results, there were meaningful differences in identification levels for gender variable, which indicated that female participants had higher mean rank scores than the male participants.

Table 4 The score distribution for the age variable

Scale	Age	N	Mean Rank	X^2	P
	16-18 year-olds	57	113.25		
	19-21 year-olds	133	112.31		
SSIS	22-24 year-olds	19	121.26	.785	.941
	25-27 year-olds	6	120.83		
	28 years and-older	10	100.40		

*p<0.05

As seen in Table 4, the **"**Kruskal Wallis**"** test was applied to see if sport spectators had different identification levels for the age variable. Considering the test results, there were no significant differences in identification levels for age variable. However, identification levels of the participants between 22-24 years old were higher than the participants in other age ranges.

Table 5 The score distribution for monthly income variable

Scale	Monthly Income	N	Mean Rank	X^2	P
SSIS	0-500 TL	84	105.82	8.105	.088
	501-1000 TL	76	109.05		
	1001-1500 TL	36	127.39		
	1501-2000 TL	9	91.06		
	2001 TL and more	20	142.15		

*p<0.05

Table 5 shows the **"**Mann-Whitney U**"** test results which were conducted to determine if sport spectators showed different identification levels in monthly income variable. According to test results, there were no significant differences in identification levels for monthly income variable. However, the participants with 2001TL or more monthly income had higher identification level than the ones with other monthly income ranges.

Table 6 The score distribution for class variable

Scale	Class	N	Mean Rank	X^2	P
SSIS	1st class	132	105.98	8.773	**.032***
	2nd class	79	122.39		
	3rd class	9	155.22		
	4th class	5	74.00		

*p<0.05

Table 6 shows the **"**Kruskal Wallis**"** test results which were done to find out whether sport spectators had different identification levels for the class variable. According to test results, there were significant differences in identification levels for the class variable. Identification levels of participants in 3rd grade were higher than other participants.

Table 7 The score distribution for the supported team variable

Scale	Team	N	Mean Rank	X^2	P
	Beşiktaş	39	118.27		
	Fenerbahçe	88	118.22		
	Galatasaray	82	116.93		
SSIS	Trabzonspor	4	121.75	21.760	**.000***
	Other	12	27.83		

*p<0.05

Table 7 presents the **"**Kruskal Wallis**"** test results administered to determine whether sport spectators were of different identification levels for the favorite team variable. To the test results, there were significant differences between identification levels for the favorite team variable. Trabzonspor supporters**'** identification levels were higher than other supporters.

Table 8 The score distribution for the following status variable

Scale	Following status	N	Mean Rank	X^2	P
	Regularly	54	190.41		
SSIS	Sometimes	99	114.73	138.667	**.000***
	Don't follow	72	52.56		

*p<0.05

In Table 8, the **"**Kruskal Wallis**"** test results conducted to determine whether sport spectators had different identification levels for the following status variable were presented. And to the test results, there were significant differences in identification levels for the following status variable. Participants who regularly followed their teams had higher identification level than the participants in the other groups.

Conclusion

Sport is defined as an activity for entertainment, healthy life and interaction with other people. It has become a field that gathers different age groups and cultures without any discrimination. It is a powerful instrument to create an influential connection among the individuals who live in different geographical regions, and people support the teams of the countries they do not know (Akkaya, 2016).

Pehlivan (2004) expressed that sport has become a phenomenon that integrates peace, rights, laws, compassion, discipline, happiness and love concepts. Sport enables individuals to represent their countries in equal and fair way without language, religion and color discrimination. Over the years, individuals' commitment to their favorite sport clubs has consolidated and their identification levels have begun to increase. Those fans show their commitment by purchasing the licensed products of the club, going to games or supporting it on social media. Being a fan is a sense of belonging and regarded as being a part of a group in which one's thoughts are supported by other group members (Dever, 2013). Sport fans are described as the public mass that offers material or immaterial support for the club activities, purchases service and products provided by the clubs and supports their team domestically and internationally under any circumstances (Kırdar, 2006).

Today, identification concept has become a critical parameter that specifies fans' attachment to their team. As a committed member of a society, identification refers to acting and behaving on the basis of society (Acet, 2005). The connection among the fans and the team presents identification concepts. Funk and James (2001) clarified this concept as an individual's association with team members and having a social and psychological relationship. Team identification levels are essential for the clubs. High identification levels among the spectators are predicted to enhance both material and immaterial strength of the clubs. Within the scope of the purpose of this study, university students' identification levels were investigated, which is crucial for all sport branches.

When the study results were analyzed, it was found that there were significant differences in identification levels for gender variable ($p>0.05$). The scores of female spectators were higher than the scores of male spectators. Based on this result and the frequent use of social media in today's world is considered, it can be inferred that female spectators can show their commitment to team on social media platforms without going to the stadium. However, in "*Identification Level of Sport Fans with Their Teams at Different Universities*" paper written by Demirel et al. (2007), a higher identification level among male participants were revealed compared to female participants. Similarly, "*An Analysis of High-School Student Fans' Identification Level with Their Favourite Team*" study which was conducted by Altınok et al. (2017) indicated higher identification score averages for male fans compared to female fans. However, the results in the literature are not comparable to the results of this study.

To the study results, there were no significant differences in identification levels for the age variable ($p>0.05$). However, the scores of 22-24 year-old participants were higher than the scores of the ones in other age groups. In *"A Study to Determine the Effects of Sport Club Brand Identity with*

Team Identification" research which was completed by Baran and Taşkın (2017), it was found that there was no significant difference between identification levels of Faculty of Economics and Administrative Sciences students, which is accordance with the current study results.

This study found no statistically meaningful difference in sport fans' identification levels for monthly income variable. However, the participants with 2001TL or higher monthly income scored higher than the ones with other monthly income ranges. High scores of the participants with high income might suggest that those participants have a higher chance to support their team financially than the low-income participants. The study on "a *Logistic Regression Analysis to Identify the Factors on Purchasing Team Uniform with Sponsor Brand*" administered by Tokmak and Aksoy (2016) revealed that an increase in one's monthly income results in spending much money on product sales to support the club, which in turn reinforces the identification with the team.

This study found a significant difference in sport fan identification levels for the class variable. The identification scores of the participants in 3rd grade were higher than the scores of other participants in other grades. It can be inferred that as the participants were in higher grade levels in their education life, they learned more about their teams, spent more time in university social groups and attended to a team's fan club.

According to the study results related to the teams, significant differences were seen in identification levels for team variable. In this sense, Trabzonspor supporters' identification levels were higher than other team supporters. In a research by Ayhan et al. (2017), *" Motivations to Buy Licensed Products: A Study on University Students*", Trabzonspor team fans were found to possess higher identification levels. These results are in line with our study.

In this study, when the following status variable was analyzed, a significant difference was identified among sport fans. The participants who regularly followed their teams had higher identification level than the ones in the other groups. Thus, it can be stated that the more often fans follow their teams, the higher identification levels they will display. Fans' sense of belonging will increase as they follow their team and they begin to see themselves as a part of the team. In "*An Analysis of Psychological Attachment of Football Fans to Their Team (Adıyaman City Sample)"* by Kartal and Inan (2018), it was found that fans that followed their team via media had a stronger attachment, which is a supportive outcome for the current study results. Likewise, in *"Analyses on Anger and Violence Behavior of Derby Game Spectators in Turkish Football Super League"* by Dal et al. (2012) it was suggested that fans become sad when their team loses. Indeed, it is likely to say that those fans' team attachment is negatively affected in case of a failure.

Ultimately, it was concluded that there was a meaningful difference in university students' team identification levels in terms of gender, class, favorite team and following status variables. It was revealed that the female participants, the students in the 3rd grade and the fans who regularly follow their teams had higher identification scores.

This study was conducted with the students at Acıbadem University in Istanbul. In the future, students from different universities might be included to compare the results. Additionally, the study can be designed to become a more comprehensive research by analyzing individuals who are a member of a club.

References:

1. Acet M. (2005). Sporda Saldırganlık ve Şiddet, Istanbul: Morpa Kültür Publishing.
2. Akkaya O. (2016). Sosyal Medya ve Spor Pazarlaması İlişkisi Taraftar Tutumlarını Belirlemeye Yönelik Bir Araştırma Beşiktaş Spor Kulübü Örneği. Master Thesis, Selcuk University, Konya.
3. Altınok, B., Emir Ekinci N., Cimen, K., Özdilek Ç., Kaya İ. (2017) Lise Öğrencilerinin Taraftarı Oldukları Takım İle Özdeşleşme Düzeylerinin İncelenmesi, Sports Education Magazine, Cilt 1, Sayı 1, 59-68
4. Ayhan B., Aktas H., Celik F. (2017). Lisanslı Taraftar Ürünlerinin Kullanım Motivasyonları: Üniversite Öğrencileri Üzerine Bir Araştırma, Gümüshane University Electronic Journal of Communication Faculty, Volume (5). Number (2), September
5. Baran A., Taskin E. (2017) Spor Kulübünün Marka Kişiliğinin Takımla Özdeşleşme Üzerindeki Etkisini Belirlemeye Yönelik Bir Çalışma, Dumlupınar University, Journal of Social Sciences, Number 52 / April 2017
6. Cakır V.O. (2017). Sporun Sosyolojik Temelleri, Sports Publishing and Bookstore, Ankara, s.13
7. Çakır, V.O. (2017). Spor Sosyolojisi, Sports Publishing and Bookstore, Ankara, s.16
8. Dal S., Odabas İ., Suna N., Bulgan C. Ve Akkaya S. (2012). Türkiye Futbol Süper Ligi Derbi Maçı İzleyicilerinin Öfke ve Saldırganlık Davranışlarının İncelenmesi, Istanbul University Journal of Sports Sciences, Volume 4, Year 2012-2014
9. Demirel, M., Güven Karahan, B., Ünlü, H. (2007) Farklı Üniversitelerdeki Spor Taraftarlarının Takımları ile Özdeşleşme Düzeyleri, Nigde University Journal of Physical Education and Sports Sciences, Volume 1, Number 2, 76-86.

10. Dever A. (2013). Endüstriyel Futbol ve Taraftarlık: Kayseri İli Örneği, Doctor's Thesis, Cumhuriyet University, Sivas.
11. Donuk B. (2016). Spor Yönetim Sanatı. S: 113. Istanbul. Ötüken Neşriyat A.Ş.
12. Durgun, D. (2007). Türkiye'de Sporun Gelişimi ve Değişen Kullanıcı Gereksinimlerini Karşılayıcı Yönde Modern Stadyum Yapılarının Temel Planlama Özellikleri. Trakya University Institute of Science and Architecture Department.
13. Fisher, R.J. (1998) 'Group-derivedconsumption: the role of similarityandattractiveness in identificationwith a favoritesportteam', Advances in Consumer Research, Vol. 25, No. 3, pp.283 288.
14. Fisek, K. (1998). Devlet Politikası ve Toplumsal Yapıyla İlişkileri Açısından Dünya'da ve Türkiye'de Spor Yönetimi. Ankara: Bagırgan Publishing.
15. Funk DC, James J. (2001). Thepsychologicalcontinuum model: A conceptualframeworkforunderstanding an individual'spsychologicalconnection to sport. Sport Management Review, 4(2), 119-150.
16. Gustave L B, Çev. S. Demirkan, "Kitleler Psikolojisi". s.153–154, Istanbul: Yagmur Publishing, 1991.
17. HofferErich. (2007). Kesin İnançlılar, Çev: ErkılGünur, İM Yayın Tasarım, s. 41, 101, 135
18. Güllü, M., Güclü, M. (2006) Ortaöğretim Öğrencilerinin Taraftarı Oldukları Spor Takımları İle Özdeşleşmelerinin İncelenmesi. 9th International Congress of Sports Sciences Proceedings Book. 3- 5 November, Mugla, s.686 – 689.
19. Jacobson, B. The Social Psychology of TheCreation of A Sport Fan Identity: A TheoreticalReview Of The Literature, Athletic Insight The Online Journal Of Psychology, Volume 5, Issue 2-June, 2003.
20. Kartal M. Ve İnan H. (2018) Futbol Taraftarlarının Takıma Psikolojik Bağlılık Düzeylerinin İncelenmesi (Adıyaman İli Örneği), Journal of Instıtute of Economıc development and Socıal Researches, ISSN:2630-6166, Vol:4 / Issue:14, p.730-735
21. Kırdar, Y. (2006), Kurumsallaşan Spor Kulüplerinde Pazarlama İletişimi Faaliyetlerinin Spor Pazarlaması Sürecinde Kurum İmajı Üzerine Etkisi; Fenerbahçe Spor Kulübünde Bir Uygulama Örneği, Ege University Social Sciences Institute Unreleased Doctor's Thesis, Izmir.
22. Kwon, H.H. and Armstrong, K.L. (2006) 'Impulsepurchases of sportteamlicensemerchandise: whatmatters?', Journal of Sport Management, Vol. 20, No. 1, pp.101–119.

23. Madrigal, R. (2000) 'Theinfluence of socialalliances withsportteams on intentions to purchasecorporatesponsors' products', Journal of Advertising, Vol. 29, No. 4, pp.1–13.
24. Matsuoka, H., Chelladurai, P. and Harada, M. (2003) 'Direct andindirecteffects of teamidentificationandsatisfaction on intention to attendgames', Sport Marketing Quarterly, Vol. 12, No. 3, pp.244–253.
25. Parker, H. M. (2007). TheEffect of Negative Sponsor Information and Team Response on Identification Levelsand Consumer Attitudes. (Doktora tezi). Access address (https://etd.ohiolink.edu/!etd.send_file?accession=osu1180025349&disposition=inline
26. Pehlivan Z. (2004). Fair Play kavramının geliştirilmesinde okul sporunun önemi ve yeri. Journal of Spormeter Physical Education and Sports Sciences, 2(2), 49-53
27. Talimciler A. Sporun Sosyolojisi Sosyolojinin Sporu. Istanbul. Baglam Publishing 2010.
28. Theodorakis, N. D., Koustelios, A., Robinson, L. and Barlas, A. (2009) 'Moderating role of team identification on the relationship between service quality and repurchase intentions among spectators at professional sport', Managing Service Quality, Vol. 19, No. 4, pp.456–473.
29. Tokmak G., Aksoy G. (2016). Futbol Taraftarlarının Takımın Forma Spornsor Markasına Olan Satın Alma Niyetlerini Etkileyen Faktörlerin Lojistik Regresyon Analizi ile Tespit Edilmesi, IU Journal of Sports Sciences 2016, (Vol) 6, (No) 2 1303-1414
30. Tükenmez M. (2011). Toplumbilim ve Spor, Kaynak Publishing, Istanbul. s.33
31. Wakefield, K.L. (1995) 'The pervasive effects of social influence on sporting event attendance', Journal of Sport&SocialIssues, Vol. 19, No. 4, pp.335–351.
32. Wann, D. L. (1997) SportPsychology. New Jersey: Prentice-Hall. pp. 325-367.
33. Wann, D.L. and Branscombe, N.R. (1993) 'Sport fans: measuring degree of identification with the team', International Journal of SportPsychology, Vol. 24, No. 1, pp.1–17.
34. Wann, D.L. Melnick, M.J., Russell, G.W. and Pease, D.G. (2001) SportFans: The Psychology and Social Impact of Spectators, RoutledgePress, New York.
35. Yetim, A. (2000). Sosyoloji ve Spor. Topkar Typography: Trabzon, s.1.

An Analysis of the National Legislation in Terms of Inclusive Education in Turkey

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Abstract

Legal arrangements about the special education carried out in Turkey during the 1980's are not sufficient. One of the significant advances in this regard is the law on children with need of special education numbered 2916 which came into effect on 12 October 1983. Also, there are legal regulations about the inclusive educational practices. The aim of this study is to describe and analyse the legal regulations on inclusive education in Turkey in the period of 1983-2020. In the study document analysis which is part of the qualitative research methods is employed. The findings of the research show that there have been different circulars about inclusive education at different time preriods and with different content. The findings of the research also show appropriate integration models for the education of children with special needs will be adopted and implemented at special education schools and institutions. These statements indicate the expanded the rights of children with special needs to education.

Keywords: Inclusive**,** fundamental rights, children with special needs.

Introduction

During the past 150 years there have been significant changes in the education of children with special needs. Changes in the understanding and views about the education of these children have led to the changes in the roles of schools in relation to their education. One of the results of such changes is that these children began to be educated in inclusive education instead of isolated manner (Kearnay, 2011). Inclusive education was first defined in terms of human rights (Daniels & Garner, 1999) and therefore, included in the human rights declaration (Artiles ve Dyson, 2005). Inclusive education is a specific educational process which improve learning and cultural and social involvement and at the same time reduce exclusion of the children with special

needs as well as which meet the needs of all students (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2005).

During the 1970's inclusive education practices began to be implemented in the USA and over time, such practices have become widespread being included in the educational systems of many countries (Organisation for Economic Co-operation and Development [OECD], 1995). Countries changed their legislation, policies and practices to allow the children with special needs to be educated at the same school with their peers. Such changes were also made in Turkey. In 1983 through the law numbered 2916, "Law on Children with needs of special education", inclusive education in Turkey was started. In 1997 a decree law on special education was passed which is numbered 573. Through this decree law pre-school education was made compulsory to the children with special needs. It also set the standards of special education at the levels of primary education, secondary education, higher education and general education. Educational system in Turkey is based on the article 42 of the constitution. It states that noone can be deprived of the right to education and learning and that primary education is compulsory and free of charge for all citizens and is delivered at public schools (Constitution of the Republic of Turkey, [T.C.], 1982).

It can be said that special education policies and legal regulations that guide these policies are an important tool for individuals with special needs to achieve all their human rights, especially their right to life and education, and to solve their existing problems. The World report on disability 2011 by the World Health Organization states that educating the children with special needs with their peers at the same school is much more cost-effective and contributes to reduce discrimination against these children. Inclusive education is closely related to the school culture of accepting differences and of considering education as a human right. The goal of inclusive education is to meet the needs of all children (Loreman, Deppeler and Harvey, 2011; UNESCO, 2012).

Legal arrangements about the special education carried out in Turkey during the 1980's are not sufficient (Eripek, 2005). One of the significant advances in this regard is the law on children with need of special education numbered 2916 which came into effect on 12 October 1983. The fourth article of this law which is entitled basic principles of special education states "Every child in need of special education benefits from special education services regardless of the type and degree of their disability." In the same article it is also stated "*Necessary measures are taken to educate children in need of special education, whose conditions and characteristics are appropriate, with their normal peers at schools and educational institutions that are originally opened for the education of children with no such needs*." This statement is also the official commencement of the inclusive education in Turkey.

In Turkey the number of inclusive students is increasing each year. Based on the data published by the ministry of National education the total number of inclusive students at primary schools, secondary schools and high schools is 173.117 in the school year of 2013-2014. Of them 152.485 are primary and secondary students. The number of those at high schools is 20.632'dir (MONE, 2014). The data of the ministry for the period of 2017-2018 show that there were a total of 257.770 inclusive students. Of them 2.601 were pre-school students, 105.098 were primary school students, 108.753 were secondary school students and 41.318 high school students (MONE, 2018). Its data for the period of 2018-2019 indicate that the number of inclusive students is 295.697. Of them 1.260 were pre-school students, 115.556 were primary school students, 130.624 were secondary school students and 48.257 high school students. Based on these data it can be stated that the number of inclusive students has been increased each year which can be considered as a reflection of the adoption of a more comprehensive education understanding in Turkey.

As stated earlier there are legal regulations about the inclusive educational practices. However, such legal regulations have been rarely studies in Turkey (Yilmaz and Melekoglu, 2018; Yazicioglu, 2020). Yilmaz and Melekoglu (2018) described the related laws and egal arrangements about inclusive education in Turkey and European countries. More specifically, the study focused on the inclusive educational practices in Turkey, United Kingdom, Sweden, Denmark, Spain, Greece and Lithuania and concluded that there are serious problems in such activities although each activity is based on a certain law. Yazicioglu (2020) analysed the views of the school principals in regard to the laws about inclusive education. They reported that some of these laws should be updated. In addition, the study concluded that there are some problems in implementing these laws. It can be said that these regulations guide inclusive education practices and have important effects on these practices. The analysis of these legal regulations may guide the future policies and laws. Therefore, the aim of this study is to describe and analyse the legal regulations on inclusive education in Turkey in the period of 1983-2020. In parallel to this aim the study deals with the question of which legal regulations on inclusive education in Turkey in the period of 1983-2020 have been developed and how inclusive education has been conceptualized and implemented within this legal framework.

Method

This section presents information on the method of the study, data collection tools and data analysis.

Model of the study

In the study document analysis which is part of the qualitative research methods is employed. It refers to "the analysis of the written documents that include information about the facts to be analysed." (Yildirim & Simsek, 2018). In the document analysis the first step is to access the documents. Following careful reading of these documents there written materials are analysed. It is followed by the interpretation and evaluation of these documents (Yildirim & Simsek, 2018). In the field of educational research, document analysis mostly contain the examination of the manuscripts or printed sources (Duffy, 2014).

Data collection tools

As stated earlier the data of the study are written materials. More specifically the data were collected from the laws, decree laws, regulations and circulars. These documents were accessed through the websites of the official gazette, the ministry of national education and the ministry of the ministry of family and social policies (MFSP).

Data analysis

The data collected were analysed through the descriptive analysis. The goal of this analysis is to present the findings obtained in a summarized and interpreted manner to the reader, and it also include quotations (Yildirim & Simsek, 2018). In this context, the legal documents that constituted the data of the study were first described and ordered according to the date of implementation of the legal regulations, taking into account the hierarchy of norms. Then, the related arrangements were analyzed and interpreted through descriptive analysis, and several assumptions were developed based on the results obtained.

Findings

This section contains the inclusive education in Turkey which takes into consideration the legislative hierarchy of norms. Legal arrangements about the inclusive education in Turkey are presented in Table 1, Table 2 and Tablo 3. Statements about the inclusive education in Turkey are shown in Table 4 and Table 5. Table 6 indicates the headings covered in the regulations.

Table 1. *Laws and decree laws on inclusive education in Turkey*

Laws	Number	Date	Related ministerial body
Law on the children in need of special education	2916	12 October 1983	MONE
Decree law on special education	573	06 June 1997	MONE
Law on disabled individuals	5378	01 June 2005	MFSP

As can be seen in Table 1 there are two laws on children in need of special education. One of them is about the MONE and the other is about the MFSP. Table 1 also indicates that there is also a decree law on this subject which is about the MONE.

Table 2. *Regulations designing the inclusive education in Turkish*

Regulation	Number	Date	Related ministry
Regulation on the special schools	18790	23 June 1985	MONE
Regulation on education of mentally handicapped children	21262	22 June 1992	MONE
Regulation on special educational services	23937	18 January 2000	MONE
Guidance and psychological services regulation	24376	17 April 2001	MONE
Regulation on special educational services	26184	31 May 2006	MONE
Regulation on guidance services	30236	10 November 2017	MONE
Regulation on special educational services	30471	07 July 2018	MONE

Table 2 indicates that seven regulations came into effect which were developed by the MONE between 1985 and 2018 to organize the inclusive education in Turkey.

Table 3. *Information on the circulars regulating the inclusive education in Turkey*

Circular	Publication date	Related ministry
Circular on the pre-school education of the children in need of special education	21 December 1987	MONE
Circular on the inclusive education of the children in need of special needs	20 April 1988	MONE
Inclusive education practices	09 February 2004	MONE
Circular on inclusive education practices	02 September 2008	MONE
Circular on the widespread inclusive education at the level of pre-school education	24 August 2009	MONE
Circular on the commencement of support training room	18 May 2015	MONE
Circular on inclusive education practices	17 September 2017	MONE

As can be seen in Table 3 the MONE developed a total of seven circulars to organize the inclusive education between 1987 and 2017.

Table 4. *Statements on the inclusive education covered in the related laws and decree laws*

Law	Article	Statements
Law on the children in need of special education	4-e	Necessary measures are taken to educate children in need of special education, whose conditions and characteristics are appropriate, among their normal peers at schools and educational institutions which are originally opened for the education of normal children.
Law on disabled individuals	15	Disabled people can benefit from lifelong education without discrimination on the basis of equality, in the environments integrated with their environment, taking into account their special circumstances and differences. In the general education system, integrative education plans are provided to enable disabled people to receive education at all levels.

	3-c	Inclusive education refers to educational environments developed to enable individuals who require special education to interact with other individuals and to achieve their educational objectives at the highest level.
	4-d	Priority is given to individuals who need special education to be educated with other individuals by making adaptations in terms of the goals, content and teaching processes and by taking into account their educational performance.
Decree law on special education	12	The education of individuals who require special education is carried out to enable them to be educated with their peers at schools and institutions of all types and levels, using appropriate methods and techniques in accordance with the individual education plans developed in advance.
	13	The education of students who require special education, who should be educated at a separate school or institution with their peers with similar disabilities, is organized with appropriate inclusiveness models and is continued at special education schools and institutions.

Table 4 indicates the number of the articles in the related laws and decree laws and the statements and definitions about inclusive education given under these articles. As can be seen in Table 4 the decree on special education includes more and more comprehensive regulations about inclusive education.

Table 5. *Statements on the inclusive education covered in the related regulations*

Regulation	Article	Statement
Regulation on special education schools	71	Children in need of special education are sent to the classrooms to be opened in the school as a support for the students with special needs in cases where a special class cannot be opened in formal and private primary and secondary schools, high schools and equivalent schools.
MONE regulation of the educational activities of disabled children	4	Inclusive education refers to the educational program in which children with intellectual disabilities continue education and training with their peers at regular schools.
	70	As a result of the examination carried out by the Guidance and Research Center Directorates, the education of the children who are determined to be at the level of trainable is carried out by putting them in regular classes at primary schools if a sufficient number of students cannot be found.
	71	In education and training of these students the " Educable Children Primary School Program" is followed.
	72	In inclusive education there can be only one student with special education in one class at the school. This may be two under compulsory situations.
	75	School administrators are responsible for providing necessary steps to offer the needed educational setting for these students to be educated with their peers through inclusive education.
	76	The School's Guidance Services Offices and the Guidance teachers who work there provide the necessary guidance activities for both inclusive and special class students.

Regulation on special education services (2000)	4-d, 67	Inclusive education: It refers to special education practices where individuals who require special education are provided with support education services during their formal and private pre-school, primary education, secondary education and their training at non-formal education institutions with their peers without disabilities.
	68	Principles of the activities of education through inclusion
	69	Criteria about the activities of education through inclusion
	70	Full time inclusive education activities
	71	Part time inclusive education activities
	72	Tasks and responsibilities in inclusive education activities

(Cont.)

Regulation	Article	Statement
Guidance and Psychological Services Regulation (2001)	32-ı	**Duties of the Department of Special Education Services** The department organizes various in-service training activities and conferences that increase the knowledge and skills of the staff working at special education institutions and the staff of schools implementing inclusive programs.
	50-j	**Duties of Psychological Counselor** If there is any student requiring inclusive education or if there is any inclusive educaton at the school or mainstreaming education, it provides the necessary guidance and psychological counseling services to the students and their

		parents in cooperation with the guidance and research center.
Regulation on special education services (2006)		**Inclusive education**
	23 (1)	Inclusive education is provided to the individuals who need special education, support and educational services together with their peers at pre-school institutions, primary, secondary and non-formal education institutions regardless of being public or and private.
	23 (2)	Topics to be taken into consideration in inclusive education practices
	24(1)	Evaluation of student achievement
Regulation on guidance services (2017)	34-m	**Tasks of guidance teachers** They observe the development of mainstreaming students who are trained in the support education room. They guide teachers in this regard.
Regulation on special education practices (2018)	4-ö	Education practices through inclusion / integration are those which are provided in order to ensure that individuals with special education needs interact with other individuals of all types and levels and achieve their educational objectives at the highest level and which are offered full-time or part-time in classes.

(Cont.)

Regulation	Article	Statement

Regulation on special education services (2018)	22 (1)	**Education through inclusion / integration** (1) Individuals with special educational needs can continue their education at all types and levels through integration / integration in line with the Special Education Evaluation Report. (2) Individuals with special educational needs can continue their education with their peers in the same class in a full-time manner through inclusion / integration or in special education classes in a part-time manner. (3) In special education schools where pre-school education, primary education or vocational and technical education programs are delivered, education can be provided through integration / integration. (4) at the schools where education is delivered through integration / integration it is compulsory that a unit for the IEP should be formed. (5) Cooperation is made between the IEP development unit and the Student Behavior Evaluation Board and the Award and Discipline Board in regard to the decisions to be taken regarding the students who continue their education through inclusiveness / integration.
	23 (1) a, b, c, ç, d	(1) Full time inclusiveness / integration education activities
	24 (1) a, b, c, ç, d, e, f	(1) Evaluation of student achievement in full time inclusiveness / integration education activities
	25(1) a, b, c, ç, d, e, f, g, ğ	(1) Support education rooms

Table 5 shows the related articles of the regulations about the inclusive education and the related statements and definitions. As can be seen in Table 5 the regulations about the inclusive education become much more detailed from the earliest one to the recent ones.

Table 6. *Circulars published and the regulations covered by these circulars*

Circular	Regulation
Circular on the pre-school education of children with need of special education (1987)	Ensuring that children in need of special education are educated through inclusive education in formal and private kindergartens and classrooms by the rate of 1/10
Circular on the inclusive education of children with special needs in regular classrooms (1988)	Issues to be considered in regard to the education of students with intellectual disabilities who can be trained in regular classes
Inclusive education practices (2004)	The measures taken to ensure that students in inclusive education are able to complete their compulsory education and enjoy the most of their education and training rights.
Circular on inclusive education practices (2008)	Measures for students who need to be educated through inclusion education
Circular on the widespread inclusive education at the level of pre-school education	Providing an effective inclusive education for children who are found suitable for inclusive education in the preschool period within the project
Circular on inclusive education practices (2017)	Measures for students who need to be educated through inclusion education
Circular on the commencement of support rooms	It is compulsory to establish a support training room at the schools or institutions where students with special education and special talent students are educated within the scope of inclusive education practices.

As can be seen in Table 6 the goal of circulars is to make the topics and necessary steps about the inclusive education activities clear.

Discusson and Conclusion

One of the significant advances in this regard is the law on children with need of special education numbered 2916 which came into effect in 1983. Akcamete (1998) states that this law and the related regulations guided the inclusive education activities of the period. One of the most significant articles in this law is as follows: "*It is essential to educate children in need of special education, whose situation and characteristics are appropriate, with their peers with regular developmental characteristics. Ensuring that the disabled*

and their peers are educated together as much as possible is important in terms of learning to live together." This provision of the law was a turning point in terms of inclusive education in Turkey. Because children with special needs studying in different educational environments until that date had an opportunity to receive education with their peers with this alternative education model.

In 1997 a decree law on special education was passed which is numbered 573. Through this decree law pre-school education was made compulsory to the children with special needs. It also set the standards of special education at the levels of primary education, secondary education, higher education and general education. Sucuoglu and Kargin (2010) state that this decree law on special education numbered 573 is the most comprehensive legal regulation in Turkey in relation to the children with special needs, and it has very similar points to the Education for All Handicapped Children Act which came into effect in the USA in 1975. The Public Law 94-142 and the Education for All Handicapped Children Act modified the general education system and allowed that disabled students can be educated with their peers as much as possible (Gable & Hendrickson, 2000). Although the law on children with need of special education dated 1983 emphasized the inclusive education for the first time, it also states that necessary steps should be taken to make it possible for children with special needs to be educated with their peers. However, the decree law on special education numbered 573 requires that education of children with special needs with their peers should be prioritized and that the individualized education plans should be developed for this purpose. In addition, it is seen that inclusive education environments are regarded not only as an environment in which children with special needs are educated with their peers who do not have special needs, but also as educational environments developed to achieve educational objectives at the highest level. It is also stated in the decree law that appropriate integration models for the education of children with special needs will be adopted and implemented at special education schools and institutions. These statements indicate the expanded the rights of children with special needs to education.

Another significant law in this regard is the law on disabled individuals which secured the rights of the disabled individuals. Its 15. article entitled education and training includes the details of the rights of children with special needs to get education. This law is an important legal regulation in terms of combating discrimination and supporting equality. In the law, it is clearly emphasized that the right to education of disabled people cannot be prevented for any reason, and that equal education opportunities should be provided to disabled people in an integrated environment with their non-disabled peers, taking into account their special circumstances and differences. It is also very significant for the inclusive education. Liasidou (2013) argues that inclusive

education is an internationally mandatory policy phenomenon that includes effective educational approaches and strategies to respond to the distinct needs of students and envisages the right to qualified education of all students. Inclusive education reforms are an endless quest to promote more social and fair ways of pedagogical thinking and acting to create schools and communities that value and respect human diversity (Barton 1997). Therefore, the law on disabled individuals is a significant attempt not to discriminate the children with special needs in educational settings and to make it possible for them to enjoy their educational rights. In the consitution of the republic of Turkey the 42. article states *noone can be deprived of the right to education and learning and that primary education is compulsory and free of charge for all citizens and is delivered at public schools*.

The right to education is a right based on equality and whose subject is all individuals. The declarations and contracts developed by the United Nations are of great importance in exercising this right. The Salamanca Statement and Framework for Action in Special Needs Education and the United Nations Convention on the Rights of Persons with Disabilities have the goal of "education for all" and emphasize the inclusive education which guide the currect educational policies on inclusive education. The Salamanca Statement and Framework for Action in Special Needs Education provides an efficient legal framework for the activities in inclusive education. The major goal of this statement is to develop a comprehensive educational approach (which include all) and to implement the goal of "education for all" (Dede, 1996). The decree law numbered 573 on special education came into effect three years after the Salamanca statement and created a significant reform in Turkey on inclusive education. The situation can be interpreted as Turkey's development of policies regarding the fundamental rights and freedoms based on the international declarations and conventions.

In Turkey it is the responsibility of the ministry of national education (MONE) to provide equal educational opportunities to children with special needs and to make it possible for them to use their right to be education. To this end, the MONE has issued several regulations on various dates so that individuals with special needs can enjoy their educational rights. The review of the regulations indicates that the understanding of inclusive education as only educating children with special needs with their peers is not the sole basis of the related policies and that the scope of the inclusive education has been widened. In the early regulations inclusive education was mostly understood as the education of the children with special needs with their peers whereas in the recent regulations several points of inclusive education have been emphasized, including its principles, criteria, models, individualized education plans and support education rooms. It indicates that inclusive education is considered to be a multidimensional activity and that the needs of

the children with special needs are totally taken into consideration. It is gratifying that the rights regarding the education of children benefiting from inclusive education have been brought and the provisions regarding the use of these rights have been introduced. It can be argued that in Turkey inclusive education level is sufficient in terms of legal framework. However, it is not enough in that the implementation of these laws and regulations should also be considered. Research dealing with inclusive education practices at various levels of education, including pres-school, primary school, secondary school and high school indicates that there are some problems in practice (Akdemir-Okta, 2008; Anilan & Kayacan, 2015; Atici, 2014; Babaoglan & Yilmaz, 2010; Batu & Kırcaali̇İftar, 2011; Bilen, 2007; Cuhadar, 2006; Demir & Usta, 2019; Deniz & Coban, 2019; Diken & Sucuoglu, 1999; Eriskin, Kırac & Ertugrul, 2012; Gok & Erbas, 2011; Guleryuz, 2014; Guzel, 2014; Kamen-Akkoyun, 2007; Kargin, Acarlar & Sucuoglu, 2005; 2003; Kıs, 2013; Nayır & Karaman-Kepenekci, 2013; Olcay Gul & Vuran, 2015; Ozengi, 2009; Sadioglu, 2011; Sarac & Colak, 2012; Sucuoglu, Bakkaloglu, Işcen-Karasu, Demir & Akalin, 2014; Sekercioglu, 2010; Tasdemir & Ozbesler, 2017; Turhan, 2007;Yazicioglu, 2019; Yilmaz, 2015; Yilmaz & Batu, 2016; Yonter, 2009; Zeybek, 2015).

As can be seen above there have been different circulars about inclusive education at different time preriods and with different content. The circular is defined as an official document sent to the concerned public bodies to guide the implementation of the regulations. Circulars are developed based on a certain regulation (Sevgili Gencay, 2014). The findings indicate that it remains valid in Turkey, and circulars are issued following the publication of the related regulations. For instance, following the regulation on the special education schools dates 1985 a circular entitles the *circular on the pre-school education of children with need of special education* was issued two years later and then the other were passed. The publication of the *circular on the pre-school education of children with need of special education* is very significant for inclusive education activities in Turkey in that one of its articles is about *ensuring that children in need of special education are educated through inclusive education in formal and private kindergartens and classrooms by the rate of 1/10*. It made it possible for these children to have pre-school education and for inclusive education to be much more comprehensive.

Another significant regulation is the one which initiated the support education rooms at schools. Because such rooms are environments include special equipment and materials in order to ensure that children with special needs receive the highest level of education. McNamara (1989) states that many countries have issued guidance on how to use these rooms and how to spend time there. In addition, the quality and type of training provided in the support education room determine the success of inclusive education

(Thurlow, Ysseldyke, Grader & Algozzine, 1983). Therefore, the publication of such a regulation by the ministry of national education is a reflection of the development of inclusive education in Turkey. In other words, inclusive education was just a conceptual term in the law dated 1983, but over time it is considered to be a right of the children with special needs and the legal framework has been shaped depending on their needs.

As a result, in order to allow the children with special needs to study in general education schools there have been comprehensive legal regulations in Turkey. Especially in the last years, the legal regulations on inclusive education have enabled children with special needs to enjoy their right to education equally and freely like other individuals. In the next process, it is necessary to constantly monitor the inclusion practices in the country, to expand the right to access education as much as possible and to maintain an understanding based on the principle of equality.

References:

1. Akdemir Okta, D. (2008). *Determination of special education services provided to students with hearing impairment and classroom teachers attending inclusive classes* (Master's thesis). Retrieved from Higher Education Council National Thesis Center. (Thesis Number: 220921)
2. Akcamete, G. (1998). Special education. S. Eripek. (Broadcast preparation). *Turkey in the Special Education* (p.p.197-207). Eskisehir: Anadolu University Publishing.
3. Anilan, H., & Kayacan, G. (2015). The fact of inclusive education through the perspective of class teachers. *Bartin University Journal of Education, Special Issue*, 74-90.
4. Artiles, A., & Dyson, A. (2005). Inclusive education in the globalization age. The promise of comparative cultural-historical analysis. In D. Mitchell (Ed.), *Contextualising inclusive education* (pp. 37–62). Oxfordshire, England: Routledge.
5. Atici, R. (2014). Difficulties of mainstreaming students in school life. *Turkish Studies - International Periodical for the Languages, Literature and History of Turkish or Turkic*. *9* (5), 279-291.
6. Babaoglan, E., & Yilmaz, S. (2010). Adequacy of classroom teachers in inclusive education. *Kastamonu Education Journal* 18(2), 345-354.
7. Barton, L. (1997). 'Inclusive education: Romantic, subversive or realistic?'. *International Journal of Inclusive Education*, *1*(3), 231–242.
8. Batu, S., & Kırcaali-Iftar, G. (2011). *Inclusive*. Ankara: Kok Publising.
9. Bilen, E. (2007). *Primary school teacher's opinions about the problems they are facing during the integration activies and their*

solution proposals. (Master's thesis). Retrieved from Higher Education Council National Thesis Center. (Thesis Number: 211466)

10. *Constitution of Republic of Turkey*. (1982). T. C. Official newspaper, (17344), 18 October 1982, 1-64.
11. Cuhadar, Y. (2006). *Determining the opinions of classroom teachers and administrators regarding the preparation, implementation, monitoring and evaluation of individualized education programs for students who are subject to inclusive education in primary education 1-5 grades*. (Master's thesis). Retrieved from Higher Education Council National Thesis Center. (Thesis Number: 187138).
12. Daniels, H., & Garner, P. (1999). Introduction. In H. D. P. Garner (Ed.), *World yearbook of education* 1999: *Inclusive education* (pp. 1–10). London: Kogan Page.
13. Dede, s. (1996) . Salamanca Statement About Special Education. *Journal of Special Education*, *2* (2), 91- 94.
14. *Decree Law on Special Education*. (1997). T. C. Official Newspaper, (23011), 6 June 1997, 7-14.
15. Demir, E., & Usta, M. (2019). Opinions of classroom teachers for inclusive education: The case of Karaman Province. *International Karamanoglu Mehmet Bey Journal of Educational Research, 1*(2), 80-98.
16. Deniz, E., & Coban, A. (2019). Teachers' views on inclusive education. *Electronic Journal of Social Sciences*, *18*(70), 734-761.
17. Diken, İ. H., & Sucuoglu, B. (1999). Comparison of the attitudes of classroom teachers with and without mentally handicapped children in the class towards the inclusion of mentally handicapped children. *Journal of Special Education*, *2*(3), 25-39.
18. Duffy, B. (2014). The analysis of documentary evidence. In J. Bell (Eds.), *Doing your research project: A guide for first-time researchers* (pp. 125-140). UK: McGraw-Hill Education.
19. Eripek, S. (2005). *Mental deficiency*. Ankara: Kok Publising.
20. Eriskin, A., Kırac, S., & Ertugrul, Y. (2012). Evaluation of the views of classroom teachers on inclusive practices. *Journal of Education and Social Sciences*, *41*(193), 200-213.
21. Gable, R.A., & Hendrickson, J. M. (2000). Teaching All the Students: A Mandate for Educators. In J.S. Choate (Eds.). *Successful Inclusive Teaching, Proven Ways to Detect and Correct Special Needs*, (pp. 2-17). Boston: Allyn & Bacon.
22. Gok, G. & Erbas, D. (2011). Views and suggestions of preschool education teachers about inclusive education. *International Journal of Early Childhood Special Education*, *3*(1), 66-87.

23. *Guidance and Psychological Services Regulation*. (2001). T. C. Official Newspaper, (24376), 17 April 2001.
24. *Guidance Services Regulation*. (2017). T. C. Official Newspaper, (30236), 10 November 2017.
25. Guleryuz, B. (2014). *Determination of the opinions of classroom teachers and prospective teacher candidates on inclusive education* (Master Thesis). Bülent Ecevit University, Institute of Social Sciences,
26. Guzel, N. (2014*). Problems the classroom teachers who have mainstreamed students in their classes face (Beykoz district example*) (Master's thesis). Retrieved from Higher Education Council National Thesis Center. (Thesis Number:355918)
27. Kamen Akkoyun, A. (2007). Opinions related to mainstreaming of staff members who work in rams.(Master's thesis). Retrieved from Higher Education Council National Thesis Center. (Thesis Number:211309)
28. Kargin, T., Acarlar, F., & Sucuoglu, B. (2005). Determining the opinions of teachers, administrators and parents about inclusive practices. *Ankara University Faculty of Educational Sciences Journal of Special Education*, *4*(2), 55-76.
29. Kearney, A. (2011). *Exclusion from and with in school: Issues and solutions*. Netherlands: Sense Publishers.
30. Kıs, H. (2013). Guidance *counselors and special education teachers views about the resource room special education support services.* (Master's thesis). Retrieved from Higher Education Council National Thesis Center. (Thesis Number:336326)
31. *Law on The Children in Need of Special Education*. (1983). T. C. Official Newspaper, (18192), 12 October 1983, 2-10.
32. *Law on Disabled Individuals*. (2005). T. C. Official Newspaper, (25868), 1 July 2005.
33. Liasidou, A. (2013). 'Intersectional understandings of disability and implications for a social justice reform agenda in education policy and practice'. *Disability & Society*, *28*(3), 299–312.
34. Loreman, T., Deppeler, J., & Harvey, D. (2011). *Inclusive education: Supporting diversity in the classroom.* Crows Nest, NSW: Allen and Unwin
35. McNamara, B. E. (1989). *The resourceroom: A guide for special educator*. New York: State University of NYPress.
36. Ministry of National Education (2014). *National Education Statistics Formal Education 2014-2015*. Retrieved from http://sgb.meb.gov.tr/istatistik/meb_istatistikleri_orgun_egitim_2014_2015.pdf

37. Ministry of National Education (2018). *National Education Statistics Formal Education 2017-2018.* Retrieved from http://sgb.meb.gov.tr/meb_iys_dosyalar/2018_09/06123056_meb_istatistikleri_orgun_egitim_2017_2018.pdf.
38. Nayır, F., & Karaman-Kepenekci, Y. (2013). Opinions of classroom teachers on the rights of inclusive students. *Journal of Educational Sciences Research*, 3 (2), 69–89.
39. OECD (1995). *Integrating Students With Special Needs Into Mainstream Schools*. Paris: OECD Publications.
40. Olcay Gul, S.,& Vuran, S. (2015). Children with Special Needs' Opinions and Problems about Inclusive Practices. *Education and Science, 40*(180), 169-195.
41. Ozengi, S. S. (2009). To determine the opinions and suggestions of school *counselors about inclusion practices at the elementary schools where they work in Eskisehir.* (Master's thesis). Retrieved from Higher Education Council National Thesis Center. (Thesis Number: 249401)
42. *Regulation on Special Educational Services*. (2000). T. C. Official Newspaper, (23937), 18 January 2000, 418-467.
43. *Regulation on Special Educational Services*. (2006). T. C. Official Newspaper, (26184), 31 May 2006.
44. *Regulation on Special Educational Services*. (2018). T. C. Official Newspaper, (30471), 7 July 2018.
45. *Regulation on The Special Schools*. (1985). T. C. Official Newspaper, (18953), 9 December 1985, 4-23.
46. *Regulation on Education of Mentally Handicapped Children*. (1992). T.C. Official Newspaper, (21262), 22 June 1992, 1-29.
47. Sadioglu, Ö., Batu, E. S., & Bilgin A. (2012). Opinions of classroom teachers about the inclusion of students with special needs. *Journal of Uludağ University Faculty of Education, 25*(2), 399-432.
48. Sarac, T. & Colak, A. (2012). Opinions and suggestions of primary school teachers regarding the problems they face during the mainstreaming practices. *Mersin University Faculty of Education Journal*, *8*(1), 13-28.
49. Sevgili Gencay, F. D. (2014). The place of anonymous regulatory processes in the hierarchy of norms. *Journal of Ankara University Faculty of Law, 63*(2), 397-417.
50. Sucuoglu, B., Bakkaloglu, H., İscen-Karasu, F., Demir, S., & Akalin, S. (2014). Preschool teachers' knowledge levels about inclusion. *Educational Sciences in Theory and Practice, 14*(4), 1467-1485. doi: 10.12738/estp.2014.4.2078
51. Sucuoglu, B., Kargin, T. (2010). *Inclusive Practices in Primary Education*. Ankara. Kök Publishing House

52. Sekercioglu, B. (2010). *Primary school branch teachers‘ opinions about problems theyare facin during inclusive education.* (Master's thesis). Retrieved from Higher Education Council National Thesis Center. (Thesis Number:279695)
53. Thurlow, M. L., Ysseldyke, J. E., Grader, J. L., & Algozzine, B. (1983). What's special about the special education resource room for the learning disabled student? *Learning Disability Quarterly*, 6, 283-288. doi:10.2307/1510439
54. Tasdemir, H., & Ozbesler, C. (2017). Evaluation of the problems faced by children attending inclusive education in the perspective of social work practices in the school environment. *International Journal of Social Research, 10* (49), 498-507.
55. Turhan, C. (2007). *Opinions of students with normal development attending primary school where inclusive practice is applied* (Master's thesis). Retrieved from Higher Education Council National Thesis Center. (Thesis Number:210096)
56. UNESCO. (2005). *Guidelines for Inclusion: Ensuring access to education for all.* Paris: UNESCO, p.13.
57. UNESCO. (2012). *Education: Addressing exclusion*. Retrieved November 13, 2014, from http://www.unesco.org/new/en/education/themes/strengthening-education-systems/inclusiveeducation/
58. World Health Organization. (2011). *World report on disability*, Retrieved from http://www.who.int/disabilities/world_report/2011/en/
59. Yazicioglu, T. (2019). Analysis of Anatolian high school teachers' views on inclusive education through metaphor analysis. *OPUS International Journal of Community Research, 14*(20), 394-420.
60. Yazicioglu, T. (2020). Determining the views of school principals about the legal arrangements about inclusive education. *Bolu Abant İzzet Baysal Faculty of Education Journal, 20*(1), 168-181.
61. Yilmaz, E. (2015). *Opinions of teachers in an elementary school about inclusive practices* (Master's thesis). Retrieved from Higher Education Council National Thesis Center. (Thesis Number:407803)
62. Yilmaz, E., & Batu, E. S. (2016). Opinions of primary school teachers from different branches about Individualized Education Program, legal regulations and inclusion practices. *Ankara University Faculty of Educational Sciences Special Education Journal*, 17(3), 247-268.
63. Yilmaz, E., & Melekoglu, M.A. (2018). The situation in law and practice of inclusive education be evaluated in the context of Turkey and Europe. *Osmangazi Journal of Education Research, 5*(1), 1-17.
64. Yonter, S. (2009). Opinions of the teachers of inclusive classes in primary schools about instructional adaptations in mathematics for

students with intellectual disabilities. (Master's thesis). Retrieved from Higher Education Council National Thesis Center. (Thesis Number:241755)

65. Zeybek, O. (2015). *Opinions and suggestions of English teachers in primary schools regarding inclusive practices* (Master's thesis). Retrieved from Higher Education Council National Thesis Center. (Thesis Number:388883)
66. Yildirim, A., & Simsek, H. (2018). *Qualitative research methods in the social sciences*. Ankara: Seckin Publishing.

Computerized School Selection and Placement System in Ghana: Challenges and The Way Forward

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Abstract

The purpose of the paper is to review literature on the challenges and the way forward of the Computerized School Selection and Placement System (CSSPS) in Ghana. Literature informs us that the key challenge to the Computerized School Selection and Placement System was the human factor in terms of refusal of parents and students to accept placement into other schools apart from their chosen high endowed schools. It is also found from the literature of this paper that, there was the challenge of some parents not being able to pay the school fees for their wards who have been placed in private schools due to the high cost of private schools' fees. Methodologically, this paper relied primarily on secondary sources of information such as online literatures on computerized school selection, archives, some excerpts from the daily graphic among others. Parents, Headteachers of Junior High Schools and Senior High Schools, students, policy makers and stakeholders in education were the focus in this study. Finally, the review established that the CSSPS has become fertile grounds for bribery and corruption in our dear country Ghana. From the review, it is therefore recommended that there is the need to revisit the policy of developing some of the senior high schools in each region as model schools, with all the modern facilities required in a standard second cycle school. Also, we recommend that Ministry of Education (MOE) and Ghana Education Service (GES) should provide inputs in time to the least endowed schools and also upgrade the infrastructural facilities in the least endowed schools to make them attractive to students so as to reduce pressure on the highly endowed schools. Finally, we encourage stakeholders to get on

board for us to see how best we could evaluate and modify the system for the betterment of the children and our nation.

Keywords: Non-Governmental Organisations, challenges, prospects, students, second cycle institutions, mechanical, manual.

Introduction

Prior to the initiation of the Computerized School Selection and Placement System (CSSPS), the selection and placement of students in second cycle institutions was machine-driven and labour-intensive. The manual system was laborious and time-consuming. It was also characterized by several limitations and flaws such as misplacement of student registration cards and forms, wrong shading of index and code numbers by students and heads of Junior High Schools (JHSs), undue delay in admissions as well as loss of admission letters. Furthermore, the manual system was highly susceptible to human manipulation and machinations such as bribery and corruption. Rich and affluent parents used their monetary influence to secure placement for their wards in good and extremely endowed schools to the disadvantage of good students from poor homes. Similarly, the influence and pressure from "old boys" and "old girls" associations, PTA officials, protocol admissions and insatiability by some heads of second cycle institutions plagued the admission procedures of the manual system.

Additionally, before the introduction of the CSSPS innovation, heads of very good and highly endowed schools indiscriminately and unilaterally set high personal cut-off grade points and admission standards to attract only the exceptionally good and gifted students to the detriment of the less brilliant and rural setting students. Furthermore, in the era of the manual system, the period of the release of the Basic Education Certificate Examination (BECE) results was a terrible period for parents and students. Nervous parents had to travel to the selected schools of their wards to ascertain the admission status of their wards and to pay the admission fee on time to secure the place else it will be given to another person.

Indisputably, these problems that lumbered the manual system made it unbefitting as a selection and placement tool. However, the question that is often asked is whether the CSSPS has succeeded in surmounting the inadequacies that were inherent in the manual system. The peak of the problem is what are the challenges and prospects of the Computerized School Selection and Placement System in Ghana? Hence, the main aim of this paper is to review literature on the challenges and prospects of the Computerized School Selection and Placement System in Ghana.

Literature Review

Pre-Computerized School Selection and Placement System

In 1987, the Government of Ghana embraced a new educational system as part of the several reforms initiated to address deficiencies in the public sector. The long-term objective of the reform is to achieve universal basic education, expand, and increase access to secondary and tertiary education. To fulfil this, the educational system was given a new dimension with particular emphasis on diversification of content and quality. With the motive of increasing access to secondary and tertiary education, the Basic Education Certificate Examination (BECE) was introduced.

Until recently, admissions to Senior High Schools had been the duty of heads of senior secondary institutions who met to select candidates for their schools based on merit and other factors defined by their communities. The selection and placement of qualified BECE candidates into Second Cycle schools of their choice was performed manually. Every year heads of Senior High Schools and Technical Institutes together with Ghana Education Service (GES) officials met at selected regional centres to conduct the selection exercises (GINKS, 2008).

The Computerized School Selection and Placement System in Ghana

The CSSPS is the acronym for Computerized School Selection and Placement System. It is an automated merit-based computerized system which has replaced the laborious Manual System of Selection and Placement (MSSP) of qualified BECE candidates into second cycle (Senior High Schools and Technical/Vocational) institutions in Ghana. The CSSPS was introduced in 2005 as part of the Ministry of Education (MOE) and Ghana Education Service (GES) grand plan of programmes and interventions intended to expand access and improve the quality of education through teaching and learning as well as curricular development. The enactment of programmes and interventions was facilitated with the support of stakeholders in education who also include Non-Governmental Organizations (NGOs) and development partners. The main purposes for the introduction of the CSSPS were; to improve and enhance efficiency in the school transition process (that is transition from Junior High School to Senior High School); increase transparency, fairness and cost effectiveness. Added to these was to increase access and participation in secondary education and finally to ensure equity and speed in the selection and placement process (Ajayi, 2009). In order to be eligible for consideration by the CSSPS process, candidates have to complete specially designed cards and scannable forms for processing by a computer software which was specifically and specially developed for the system.

Since 2005, the process of selection and placement into senior high school, secondary technical and vocational school has been computerized. The

main objectives for the introduction of the CSSPS were promotion efficiency, transparency, fairness and equity and speed in selection and placement. The main features of the CSSPS are as follows;

Selection is based on scores of six subjects. A total of six subjects are used for the selection; this comprises four core subjects and two other best subjects. The core subjects are English, Mathematics, Science and Social Studies for Senior High Schools. For technical institutions, Pre-Technical Skills replace Social Studies as the fourth core subject.

a. To qualify for selection and placement candidates' grade in any of the four core subjects should not exceed five.

b. The minimum grade for each of the best other two subjects should not exceed six and if added to the four core subjects must not exceed an aggregate of 30.

c. A candidate whose grade for any of the core subjects exceeds five or cancelled by the West African Examinations Council (WAEC) will be deemed as not qualified for selection and placement.

Inauguration of the Computerized School Selection and Placement System in Ghana

Ghana inaugurated a Computerized School Selection and Placement System (CSSPS) in September 2005 with the aim of increasing transparency and enhancing the competence of the school transition process. Prior to this, the student selection and school admission were carried out manually at annual meeting of head teachers in each region following the announcement of examination results; students were required to choose all three of their schools from a single region to reduce the administrative burden of manual school assignment. Additionally, student selection cards were misplaced and parents routinely complained that school assignment was based on preferential treatment and not actually on merit because well–connected students were admitted into top and highly endowed schools even if they did not have the requisite grades.

The computerization mechanism was therefore designed to address several of the insufficiencies inherent in the manual system. Under the CSSPS, students could pick schools from multiple regions and there was to be limited interference from headmasters in the school's selection and assignment process. The CSSPS uses a deferred acceptance algorithm for school assignment (Gale & Shapley, 1962). Under this procedure students are ranked according to their priority levels (that is Test scores in the case of the CSSPS); they are then proposed as a match to their first-choice school in order of their test score rankings. Students are assigned to their first choice if there is a space available. If the student is unassigned in the first round, then the second-choice school is considered and the process repeats. In the second round, a student

can displace another student who was assigned in the first round if the first-round student has a lower examination score. Under this algorithm, there is no penalty for ranking schools in an arbitrary order within the set of the three first choice schools. This contrasts with the Boston mechanism which does not allow already assigned or placed students to be displaced in subsequent rounds. There are therefore, clear incentives for making a premeditated first choice under the Boston mechanism which does not apply under the deferred acceptance algorithm.

Students who are not placed or assigned to any of their chosen schools are assigned to any available space in their district or whenever possible. However, students who receive the passing grade may not be assigned to any school at all, if there are no spaces or vacancies remaining. Students are informed of their placement and are given thirty (30) days to report at their schools of placement once the school year begins, Heads of SHS are then required to report any unfilled places to the Ministry of Education, so that the spaces can be allocated to previously unassigned students. Ajayi (2009) revealed and exposed the fact that there is imperfect compliance to this regulation and anecdote evidence suggests that certain schools under report the availability of spaces in order to reserve some which they then allocate at their own discretion. To eliminate this problem, as a result of Ajayi's revelation in the 2009 school placement exercise; many schools were assigned more students than the declared places.

During the current school assignment process, the CSSPS makes enough effort to address socio economic inequality. Several schools were evaluated and assigned a deprivation score ranging from 0 (non–deprived) to 9 (highly-deprived). These scores are used to scale up test–scores for students from low–resourced Junior High School (JHS) and the rural schools in an attempt to compensate for the weaknesses of attending under resourced schools especially in the rural areas. It can be noticed that successive attempt of enhancement in the mechanism of selection and placement into SHSs is to enhance efficiency and to increase access into second cycle institutions since there is always excess demand for placement over the existing vacancies in the secondary schools.

Potential Benefits of the Computerized School Selection and Placement System

The CSSPS presents numerous potential benefits among which are:

i. achieving the government's long-term objective of universal basic education, expanding, and increasing access to secondary and tertiary education;

ii. reduction in stratified societies (class societies) since the system does not discriminate between the rich and the poor;

iii. enhanced national integration through the system's ability to allow students to choose schools from more than one region;
iv. improved teaching and learning since selection and placement are done on merit;
v. effective, efficient, transparent, simple and speed in the procedure of selection and placement;
vi. removal of decentralized selection constraints on regional basis by allowing the choice of schools from any combination of regions (www.ghanaschoolsnet.com, 2011);
vii. promotion of fairness and equity by enabling pupils who performed well to gain admission to schools of their choice irrespective of whether the school is a first, second or third option. The system also ensures that no school admits more students than the vacancies available for each programme;
viii. reduction in human error during the process of capturing registration data;
ix. easy access to placement results through Short Messaging Service (SMS) where candidates only text their identity card numbers and instantly receive replies on their placement status indicating the secondary school where they were placed and the program (SISCO, 2007). Compared to the manual method of selection and placement, parents and guardians now see the computerized system as being more objective than subjective.

Challenges of the Computerized School Selection and Placement System (CSSPS)

There have been allegations of corruption in the media (Aboagye, 2011) in spite of various assurances from the Ministry of Education. Among the problems and criticisms are the following:
i. Some parents complain that because of high cost of private schools fees, those who find their wards placed in the private schools do have problem of school fees.
ii. Also because of the distributive nature of the system, students who are placed in schools far away find it difficult to cope with distance.
iii. There is also the problem of female students being placed in male schools and vice versa (Asare, 2010).

While these problems have been attributed to the registration process in the schools where most students make mistakes in shading wrong, some people think the CSSPS is not working well (GINKS, 2008).

It also alleged that some heads of schools do not make available to candidates the WAEC register which lists all schools with designated codes for correct shading. It is also reported that about fifty thousand errors were committed in 2011 alone due to the above challenges faced by the new system of selection (www.ghanaschoolsnet.com, 2011; GINKS, 2008).

It is in the light of these problems that this paper tries to assess the CSSPS from the stake- holders' perspective. Among the stakeholders for this research are Heads of both JHS and SHS, parents whose wards have gone through the CSSPS, students who have gone through the CSSPS as well as the implementers of the CSSPS.

Babah (2011) researched on the topic; "Stakeholders' Perception of The Computerized School Selection and Placement System: A Study of The Greater Accra Region, Ghana'. The study was intended to find out whether the CSSPS was a better alternative to the manual system in the process of selection of qualified students in the Senior High Schools (SHSs) in the Greater Accra Region of Ghana. A sample size of 306 was selected from a population of 994. Stratified and simple random sampling procedures were employed to select the subjects in the study sample. Respondents to the questionnaire and interview were randomly selected. A pilot study was conducted in the Eastern Region to test the validity and reliably of the instrument. The Cronbach alpha coefficient reliability at 0.7 was recorded. The data generated was processed and converted into percentages to facilitate the analysis and discussion processes.

From the data collected and analysed, some of the challenges were found as; placement of students in distant schools not selected, inadequate information on the demographic features of the school, inability of candidates securing their first-choice school, errors in the selection process by candidates and refusal of parents and students to accept alternative placement. In summation, the researcher stated that the key challenge to the CSSPS was the human factor in terms of refusal of parents and students to accept placement into other schools apart from their chosen endowed schools. In support of this argument, Gyaase and Adu-Gyamfi (2012) highlighted the challenges of the CSSPS as: some parents complain that because of the high cost of private schools' fees, those who find their wards placed in the private schools do have problems of school fees. Also, because of the distributive nature of the system, students who are placed in schools far away find it dangerous to cope with distance. Finally, they mentioned that there is the challenge of female students being placed in male schools and vice versa.

Following the above challenges, Wesley-Otoo and Anokye (2016) discovered and discussed some challenges facing the CSSPS in Ghana. They highlighted the following;

1. Lack of fairness in the distribution of school facilities is a challenge. Analysis of the SHSs, as captured by the appraisal document of the Secondary Education Improvement Project, shows that schools do not have the same funding in educational resources. If all schools had the same resources, the system would have been highly appreciated by all stakeholders. This implies that efforts to address the unfairness in school resources and or facilities will,

to a large extent, make things much better than they are now. It has been observed that the issue of unfairness often makes parents and students choose schools described as Category "A" schools to the neglect of other ones. These 'A' schools are commonly recognised to be well endowed and popular and for which reason most parents would like their children to attend them. A review of the choice pattern of some Category "A" and "C" schools has shown that high information asymmetry on schools and/or preference for highly endowed SHSs at the expense of the so-called less-endowed ones.

2. Poor publication of school information to the public has been identified to have posed some discomfort to the selection and placement exercise. Due to the dignity of most people to have their children in Category "A" schools, there have been series of direct appeals for admission from major stakeholders, including religious organisations, traditional rulers and old student groups.

3. Insufficient and inaccurate data provided by candidates during registration for Basic Education Certificate Examination (BECE) have also been posing challenges. Sample cases have shown that male students whose forms bear "females" usually end up being placed in wrong 'sex' schools.

4. Other problems include choice of schools without reference to their residential status and programmes on offer, the lack of concern of parents in the registration of their children resulting in rejection of placements by some parents and choice of schools without reference to the level of financial preparedness on the part of parents.

In addition to the above, an online report by the Daily Graphic as of 16th September 2019 mentioned that the CSSPS challenge goes beyond errors with the system. Candidates are desirous to be placed in high endowed schools and, therefore, we find some schools getting more students than they can accommodate whilst the reverse is the case for some schools. A clear example is in the year 2019, when all the 721 public SHSs in the country declared 520,298 vacancies, while the number of candidates who qualify to be placed were 473,728. This, ordinarily, should be good news that all the candidates will secure placement, with as many as 46,570 places remaining vacant. While some schools are flooded with students with some not getting accommodation for their students, other schools have their gates wide open, without anybody entering. The reason for this is that there is a notion that some schools are superior to others.

Another challenge discussed by the Daily Graphic (2019) is that while the CSSPS may be a good initiative, reports of excessive human interference certainly defeat the goal of the system. In line with that, it was stated categorically that, currently, there are claims that some schools and officials of the Ghana Education Service (GES) are demanding certain amount of money specifically between two thousand, five hundred Ghana Cedis (GHc2,500) and five thousand Ghana Cedis (GHc5,000) to get schools

changed and some parents have actually succumbed and paid for the favour. This must be a serious gap on our conscience as a nation. Subsequently, our children now come to perceive that money is the solution to their failures even when they do not deserve some class of schools.

Discussions

Firstly, the review found out that CSSPS has been bedeviled with challenges such as; placing students in distant school which they did not select, placing students in schools which are opposite to their gender, low chances of candidates securing their first-choice of senior high schools selected and errors in the selection process by candidates and refusal of parents and students to accept alternative placement. Confirming what is above, Babah (2011) mentioned that the key challenge to the CSSPS was the human influence in terms of refusal of parents and students to accept placement into other schools apart from their chosen endowed schools.

Secondly, it can be inferred from the review that there was the challenge of some parents complaining that they cannot pay the school fees for their wards who have been placed in private schools due to the high cost of private schools' fees. We can decipher from the review that the CSSPS was faced with the challenge that some female students were placed in male schools and male students were placed in female schools. Gyaase and Gyamfi (2012) maintained that some parents complain that because of the high cost of private schools' fees, those who find their wards placed in the private schools do have problems of school fees. They also added that there is challenge of female students being placed in male schools and vice versa.

Finally, the review established that the CSSPS has become a fertile ground for bribery and corruption in our dear country Ghana. The 2019 daily graphic report stated emphatically that there are allegations that some schools and officials of the Ghana Education Service (GES) are demanding between two thousand, five hundred Ghana Cedis (GHc2,500) and five thousand Ghana Cedis (GHc5,000) to get schools changed and some parents have succumbed to this irregular act. This act is a clear example of bribery and corruption which is a serious stain on the moral uprightness of our dear nation Ghana.

Conclusions

From the review done, it is can be concluded by the researchers that human factor is a necessary evil adding up to the challenges of the Computerized School Selection and Placement System (CSSPS). Furthermore, some parents not being able to pay the school fees for their wards who have been placed in private schools because of the high amount of fees being paid by these private schools. As part of the conclusions, it was also revealed that CSSPS has become a fertile ground for bribery and corruption

for people who wield authority when it comes to placement of Senior High School students. Some students are also placed in distant schools which they did not select and also placing students in schools which are opposite to their gender. These problems are worrying and disturbing. In view of these distasteful conclusions, the following recommendations has been made by researchers.

Recommendations

In the face of the challenges bedeviling the CSSPS in Ghana and as a policy measure we recommend the following to help us move forward as a nation;

1. We must revisit the policy of developing some of the senior high schools in each region as model schools, with all the ultra-modern facilities required in a standard SHS, as a way of reducing the human traffic at these highly sought schools. If the nation is able to do this, it will go a long way to motivate many students to choose those model schools, as they know that the quality of education that they will receive in other schools will not be compromised and sacrificed.
2. Ministry of Education (MOE) and Ghana Education Service (GES) should provide inputs in time to the least endowed schools and also upgrade the infrastructural facilities in the least endowed schools to make them attractive to students so as to reduce pressure on the highly endowed schools.

If all schools had same or parallel distribution of resources regarding infrastructure, staff and instructional resources, the CSSPS would have been appreciated by many people. We, therefore, urge policy makers and other stakeholders of education to get on board for us to see how best we could review and modify the system for the betterment of our children and our dear nation.

References:

1. Amedahe, F.K; & Asamoah-Gyimah, E. (2005). *Introduction to educational research*. Cape Coast: Centre for Continuing Education of the University of Cape Coast (CCEUCC)
2. Ajayi, K. (2009). *Strategic behaviour and revealed preferences; lessons from choice and student's placement in Ghana*. Berkely: University of California.
3. Babah, P. A. (2011). *Stakeholders' perception of the computerized school selection and placement system: A study of the Greater Accra Region, Ghana*. Unpublished master's thesis, University of Cape Coast, Cape Coast.
4. Bacchus, M.K. (1966). *Education for development and underdevelopment: Guyana's educational system and its*

implications for the third world. Waterloo, Ontario., Canada: Wilfrid Laurier University Press.
5. CSSPS Report, (2005) Computerized School Selection and Placement System. Accra: MOE (Ministry of Education)
6. CSSPS Report, (2006) Computerized School Selection and Placement System. Accra: MOE (Ministry of Education)
7. Daily Graphic (2019). *Allow CSSPS to work efficiently*. Retrieved from https://www.graphic.com.gh/daily-graphic-editorials
8. Descombes (2003). *A good research guide: For small scale social research projects*. (2nd ed) Maidenhead United Kingdom: Open University Press
9. Duflo, E. Dupas, P., & Kremer, M. (2008). *"Peer effect and the impact of tracking: Evidence from a randomised evaluation in Kenya*" A working paper.
10. Ebel, R. L. (1972). *Essentials of educational measurement.* Englewood Cliffs, NJ: Prentice Hall, Inc.
11. Editorial Statement (2008). Accept CSSPS admission. *Junior Graphic* (2008 Wed, Nov.19) pp. 19-25.
12. GINKS. (2008). *Man or P.C: Ghana's S.S.S selection process.* Retrieved from http://www.ginks.org
13. Gyaase, P. O., & Gyamfi, S. A. (2012). Transparency, equity and accessibility to secondary education in Ghana through e-governance: Stakeholders perspective of the computerized school selection and placement system in Ghana. *International Journal of Basic Education*, 2(2), 104-116.
14. Robinson A. (1990). Co-operation or Exploitation? The argument against co-operative learning for talented students. *Journal for the Education of the*
15. *Gifted*. 5, 13.
16. Sarantakos, S. (2005). *Social Research* (3rd ed) Palgrave. *New York*: Academic Press.
17. SISCO. (2007). *Computerised school selection and placement system: Local solutions to local problem.* Accra: Somuah Information Systems Co.
18. Wesley-Otoo, E., & Anokye, K. (2016). *CSSPS: Success, challenges and the way forward*. Retrieved from https://www.graphic.com.gh.

Prevalence of Bullying and Cyberbullying Among Urban Middle School Students

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Abstract

This study examined bullying and cyberbullying among 185 middle school students in 4 urban middle schools in Ohio. Nearly 60% of the sample was female, and 67% of the sample was not Caucasian. The results indicated that bullying and cyberbullying are prevalent in this population. Approximately 44% of 6th-grade students felt terrible about themselves due to bullying, and 62% of all female students believed other students had spread false rumors about them. On average, female students reported more bullying in their school than males. Caucasian students reported the highest rate of cyberbullying. Based on their findings, the authors discussed the issues surrounding bullying in urban schools and gave suggestions regarding approaches that can help students better cope with bullying.

Keywords: Bullying, cyberbullying, urban males, middle school.

Introduction

Bullying affects nearly one-quarter of the students in the United States (Seals & Young, 2003). The National Education Associate (NEA) and the United States Department of Education believe that nearly a third of all students in the United States have been impacted by bullying (Nishioka et al., 2011). Bullying is an inequality of power or strength demonstrated through regular actions that remind the "weaker" party of their lack of power and strength. An imbalance in the relationship must be present to be considered

bullying (Olweus, 1993). Relational bullying consists of some actions that focus on excluding others through gossiping and sharing rumors (Williford & Zinn, 2018). The goal of the bully to push students to dislike another student or group of students. Their actions are often physical, and they use behaviors such as hitting or threatening another student or steal their possessions. Whether physical or relational, bullying is detrimental to students (Bondu, Rothmund & Gollwitzer, 2016).

Background

According to Lohmann and Taylor (2009), bullies are aggressive, their actions are deliberate, and their behavior is intentional and forceful. They intend to harm other students by using physical force or intimidation. Technology such as Facebook, Snapchat, and Instagram are tools that a bully will often use for continuous harassment of their victims (Chester et al., 2019). The bully then separates or excludes the student from his or her peer group. Datta, Dewey & Huang, (2017) found that those students who were bullied by peers demonstrated a more significant amount of withdrawing from school involvement, lower grades, and had a negative perception of the school environment. In their research on teacher's perceptions of bullying, Waters, and Mashburn (2017) noted that 85% of teachers reported that they had seen bullying among their students. They reported that verbal bullying was the most common form and the most severe. However, Waters and Mashburn (2017) have noted that often, teachers minimize bullying by referring to it as "teasing" or "gossiping." In a research study examining these adolescents, Bondu et al. (2016) found that they experience more frequent and stronger emotions than both younger and older students. Poor emotional understanding and difficulties in regulating negative emotions have been linked to aggression in adolescence, which can then lead to bullying. Anger leads adolescents to misinterpret existing cues, and this misinterpretation might result in physical, verbal, and indirect aggression (Craig et al., 2009). Bullying is very detrimental for adolescents and affects their mental health, social norms, and overall wellbeing (Jose, Ryan & Pryor, 2012). Academic achievement can suffer, and students who are bullied can begin to replicate the bullying behaviors they receive.

Gender differences are significant when evaluating the relationship between bullying behaviors and adolescents' coping skills strategies. Based on previous research findings (Wang, Iannotti, & Nansel, 2009), boys were more involved in physical or verbal bullying, whereas girls were more involved in relational bullying. Therefore, a bully might have a more powerful effect on girls due to their heightened concern about social consequences for their behavior. In that way, social exclusion can be seen as a powerful tool for girls to achieve dominance. Hellstrom and Beckman (2019) found that boys use

bullying as a tool to alleviate aggression and that the most natural target for this aggression was the "weak guy." Boys who display non-normative behavior may be seen as easier targets (Kowalski, Limber & McCord, 2019). Accordingly, boys and girls tend to have different views about seeking adult help (Hellstrom & Beckman, 2019). Girls demonstrate more significant help-seeking behaviors generally, whereas boys report more passive, avoidant, and suppressive behaviors (Kowalski et al., 2019). From these findings, girls who report bullying victimization demonstrate more significant psychological consequences, while boys report more adverse physical health outcomes (Kowalski et al., 2019).

Bullying based on race has been found in students at a very young age, and higher risks of bullying pertain to certain racial groups (Larochette, 2009). Students perceive themselves as belonging to the same social category, and then they can compare and distinguish themselves from other groups. Therefore, early racial bias might lead to hostility and prejudice between groups of different racial backgrounds (Larochette, 2009). Behaviors related to racially driven bullying include derogatory and racial slurs, physical attacks, and other methods of exclusion because of racial identity (Lim & Hoot, 2015). Bullying is highest among Caucasian students, followed by Hispanic and African American students (Lim & Hoot, 2015). Therefore, the acceptance of diversity in schools is essential, because schools, where diversity is accepted, are much more likely to have lower rates of bullying behavior.

Cyberbullying occurs via electronic communication, and it has been found that 60% of youths who had experienced cyberbullying also experienced traditional forms of bullying (Chester et al., 2019). Cyberbullying is an aggressive, intentional act using electronic forms of contact, which, repeatedly and over time, prevents students from defending themselves (Kowalski et al., 2019 Because many students who experience cyberbullying also experience traditional bullying, it is challenging to determine significant differences between the two forms of bullying (Kowalski et al., 2019). A 2013 study suggested that 88% of students who had been cyberbullied had experienced traditional bullying as well.

Research Method

The study took place in four urban middle schools within a school district in Ohio. Within the 4 four schools, 185 students between 5th and 8th grades completed a 17-item survey that was distributed electronically through their school email. Questions in the survey were developed from the research of Dan Olweus(1993) and his highly effective bullying prevention program and protocol (Limber,2004). Participants were invited to take part in the survey during guidance units or were invited to participate by their homeroom teacher. The survey was self-administered with an online program that

allowed researchers instant and continuous access to the data. The self-administered survey allowed students to answer questions at their own pace and on their own time. Both school laptops and personal phones were used to self administer the test. The survey sought to collect demographic data, student experiences with bullying, their trust in adults to intervene and help with incidences of bullying, and their knowledge and experience with cyberbullying.

Results

Of the 185 survey responses received, the results compared student perception data regarding individual popularity, the popularity of others, rumors, cyberbullying, and if students were affected emotionally. In all, 31% of the total respondents felt terrible about themselves due to other students bothering them. Of these students, 72% were female, showing a much higher proportion of female students who feel affected by others than females in the general population of the survey. Approximately 40% of those same students indicated that they also experienced cyberbullying, almost twice the 21% of general responses to the survey.

Table 1:
Prevalence of student perceptions on popularity and bullying behaviors

	Number of respondents	% who completed the survey	Do you think you are popular in school?	Do you think others are stronger or more popular?	Have students ever spread rumors about you on purpose?	Have students bothered you enough that you feel bad about yourself?	Have you ever been cyberbullied?
Total	185		93	111	102	58	39
Grade							
5th	10	5	.8	.5	.6	.1	0
6th	27	15	.48	.67	.48	.44	.30
7th	89	48	.56	.60	.55	.25	.24
8th	59	32	.37	.58	.58	.36	.17
Gender							
Female	107	58	.39	.52	.63	.39	.24
Male	78	42	.65	.70	.45	.21	.15
Ethnicity							
African American	68	37	.53	.62	.60	.25	.16
Hispanic	24	13	.38	.63	.46	.38	.17

Caucasian	15	8	.33	.87	.47	.47	.33
Multiracial	33	18	.58	.61	.42	.21	.18
Asian/Native American	5	1					
No response	40	22					
Total	185		93	111	102	58	39

Grade Level

Fifth-grade students comprised 5 % of the survey responses, sixth-grade students contributed 15 %, seventh-grade students were 48 %, and eighth-grader students added 32 % of completed surveys. The perception of traditional bullying behaviors appears to be evenly distributed among the grades polled with a standard deviation of .056 (CV=.097) between student responses. Sixth-grade students responded with the highest frequency that they were affected by bullying behaviors. In contrast, only one fifth-grade student reported feeling poorly due to others bothering him or her. Reported rates for cyberbullying were highest among the sixth-grade respondents. No fifth-grade students reported experiencing cyberbullying.

Gender

It was found that 58% of responses were from female students, while the remaining 42% of respondents identified as male. Consistent with other studies on bullying, female students reported higher rates of traditional bullying behaviors and cyberbullying than male students. Females reported traditional bullying behaviors, an average of 18% more frequently than male students. Rates for cyberbullying were more comparable between the genders, but there were nearly 8% more female reports than males. Males reported higher rates of perceived popularity and a significantly higher number of responses regarding the feeling that others were more popular or stronger.

Ethnicity

The following ethnicities were reported: African American (37 %), Caucasian (8 %), Hispanic (13%), and Multiracial (18%). Nearly 22 % of respondents did not include ethnicity information, which did not meet our criteria; as such, the responses were not included in the results. Asian American and Native American responses were collected at a rate of 1 % each. Due to such a small sample size, these responses were excluded as well.

Discussion

The results of this study found a significant difference between grade levels who have reported being affected by bullying behaviors. The 6th-grade

students reported with the highest frequency that they were affected by bullying behaviors, which could be attributed to the school climate. Another contributing factor may be the lack of teacher support and school safety presented within the school climate. For adolescents, the school climate offers one of the most critical social contexts for mental and behavioral wellness, including self-esteem, interpersonal relationships, and coping strategies (Cross et al., 2018). When teachers form positive bonds with students, classrooms become supportive spaces in which students can engage in academically and socially productive behaviors (Hughes, Cavell & Wilson, 2001).

Further research would need to be conducted to assess the direct effects of classroom management and teacher-student relationships as contributing factors to bullying behaviors. No fifth-grade students reported experiencing cyberbullying. This could be attributed to a lack of understanding of cyberbullying, less frequent use of technology, or increased parental monitoring of technology. Access to technology and parental monitoring were not assessed during this survey, so it would be difficult to determine the reason for the lack of cyberbullying reports for this age group.

The results of this study also showed significant results regarding gender and the effects of bullying and cyberbullying. Female students reported higher rates of traditional bullying behaviors and cyberbullying than male students; whereas, males students reported higher rates of perceived popularity and a significantly higher number of responses regarding feeling that others were more popular or stronger. These findings match closely with previous research, stating that female students are more often victimized by bullying than male students (Craig et al., 2009). At the same time, female students put particular emphasis on positive social relationships, whereas male students have a stronger focus on aspects of power. It appears that the most critical risk factor for bullying by students is the lack of empathy because students who are less engaged with others are at more risk of being bullied. Our study also reported that 40% of female students had experienced cyberbullying. These findings are supported by the research that indicates that female students' online friendships are more frequent than male students. Female students use social media to post personal images, share stories, experiences, seek advice on private matters and appearance, and plan and organize social activities (Chibbaro, 2007). Female students are at higher risk for problems associated with bullying, such as gossip, name-calling, spreading rumors, coercion, and shaming (Chibbaro, 2007).

Significantly fewer Hispanic and Caucasian students reported feeling popular at school. Caucasian students reported perceiving their African American, Multiracial, or Hispanic students as more popular and stronger. African American students reported that rumors were spread about them,

while Caucasian students were negatively affected by bullying behaviors but were cyberbullied more than the students of other ethnicities.

Conclusion

Whole-School Interventions

Whole-school approaches consist of social-emotional learning or character education. Instruction helps students relate to each other with empathy. These programs focus on character traits such as respect, honesty, trust, and responsibility (Cross et al., 2018). Many whole-school approaches use mentors with urban youth who often lack strong role models (Jose et al., 2012). Mentors have been shown to improve the school climate and student achievement. These mentors help students to see the possibility of job opportunities that may not be present within their neighborhoods (Zimmerman, Bingenheimer & Notaro, 2002).

Individual Interventions

Individual approaches focus on providing positive role models to help students develop specific goals and a purpose. Interventions by school counselors and psychologists have proven to be very successful with students. Cognitive Behavioral Therapy (CBT) has been proven to be one of the most effective approaches to addressing bullying behavior (Lohmann & Taylor, 2009). This approach focuses on helping students understand their thoughts, feelings, and actions. CBT can help students who are bullied and have developed maladaptive behaviors by focusing on more positive attributes. CBT focuses on improving low self-esteem and changes negative self-talk that students often have about themselves when they are bullied. CBT can also be used to change the behaviors of the bullies. Often anger is at the core of bullying behaviors as well as the need for power and control. Ironically, many bullies are depressed and come from homes with aggressive parents or adults who bully, CBT has been found helpful in addressing many of these behaviors and the underlying reason that children often bully (Schmidt, Pierce & Stoddard, 2016).

Cyberbullying Interventions

Cyberbullying has shown dramatic increases in recent years with social platforms such as Facebook, Snapchat, and Instagram. Schools are beginning to develop programs, and classroom units have been developed to focus on the social and legal aspects of using these platforms in negative ways and as an instrument for cyberbullying (Chibbaro, 2007). These classroom units help adolescents to negotiate online communications. Strategies for sharing private information with other students, such as using language and symbols with less obvious meaning, is a good starting point. Helping students

establish student-friendly reporting schemes is urgent, and providing self-help resources designed by students, such as informational websites, safety checklists, and social media apps, is critical (Chibbaro, 2007).

Multicultural Interventions

The urban public schools have become more culturally and ethnically diverse. Students need skills that express an increased understanding of an expanding and diverse population. Teaching about various cultures at an early age will help students understand biases that have already formed about other cultures (Sarraj et al., 2015). Multicultural programs have a positive effect on students, and a knowledge of a diverse population will bring about familiarity and respect. Specific cultural differences should be taught as they pertain to all students, and not as a proof of difference and rejection (Sarraj et al., 2015).

References:

1. Bondü, R., Rothmund, T., & Gollwitzer, M. (2016). Mutual long-term effects of school bullying, victimization, and justice sensitivity in adolescents. Journal of Adolescence, 48, 62–72. https://doi.org/10.1016/j.adolescence.2016.01.007eferences
2. Chester, K. L., Magnusson, J., Klemera, E., Spencer, N., & Brooks, F. (2019). The mitigating role of ecological health assets in adolescent cyberbullying victimization. Youth & Society, 51(3), 291-317. doi:10:1177/0044118X16673281
3. Chibbaro, J. S. (2007). School counselors and the cyberbully: Interventions and implications. Professional School Counseling, 11(1), 65–68. https://doi.org/10.5330/PSC.n.2010-11.65
4. Craig, W., Harel-Fisch, Y., Fogel-Grinvald, H., Dostaler, S., Hetland, J., &, HBSC Bullying Writing Group. (2009). A cross-national profile of bullying and victimization among adolescents in 40 countries. International Journal of Public Health, 54, 216e224. http://dx.doi.org/10.1007/s00038-009-5413-9.
5. Cross, D., Shaw, T., Epstein, M., Pearce, N., Barnes, A., Burns, S., … Runions, K. (2018). Impact of the Friendly Schools whole-school intervention on transition to secondary school and adolescent bullying behaviour. European Journal of Education, 53(4), 495–513. https://doi.org/10.1111/ejed.12307
6. Datta, P., Dewey, C., & Huang, F., (2017) The toxicity of bullying by teachers and other school staff. School Psychology Review: December 2017, 46(4), 335-348.
7. Hellström, L. & Beckman, L. (2019). Adolescents' perception of gender differences in bullying. Scandinavian Journal of Psychology. 35(4), 301-312.

8. Hughes, J., Cavell, T., & Wilson, V. (2001). Further support for the developmental significance of the quality of the teacher-student relationship. Journal of School Psychology, 39(4), 289-301.
9. Jose, P., Ryan, N., & Pryor, J. (2012). Does social connectedness promote a greater sense of well-being in adolescence over time? Journal of Research on Adolescence, 22(2), 235–251.doi:10.1111/j.1532-7795.2012.00783.
10. Kowalski, R., Limber, S., & McCord, A. (2019). A developmental approach to cyberbullying: Prevalence and protective factors. Aggression and Violent Behavior, 45, 20-32. Retrieved from https://doi.org/10.1016/j.avb.2018.02.009
11. Larochette, A. (2009). The influences of race, immigrant status, and school climate on the incidence of bullying in Canadian children and adolescents. Anne-Claire Larochette, 2009, 1-88.
12. Lim, S., & Hoot, J. (2015). Bullying in an increasingly diverse school population: A socio-ecological model analysis. School Psychology International, 36(3), 268-282.
13. Limber, S. (2004b). Implementation of the Olweus Bullying Prevention Program: Lessons learned from the field. In D. Espelage & S. Swearer (Eds.) Bullying in American Schools: A Social-Ecological Perspective on Prevention and Intervention. (351-363). Mahwah, NJ: Lawrence Erlbaum.
14. Lohmann, C., & Taylor, J.(2009) The Anger Workbook.Seattle, Wa. Instant Help
15. Nishioka, V., Coe, M., Burke, A., Hanita, M., & Sprague, J. (2011). Student-reported overt and relational aggression and victimization in grades 3-8. Issues and Answers Report, REL 2011(114), 1-42.
16. Olweus, D. (1993). Bullying at School. Malden, MA: Blackwell Publishing.
17. Sarraj, H., Bene, K., Li, J., & Burley, H. (2015). Raising cultural awareness of fifth-grade students through multicultural education. Multicultural Education, 22, 39-45.
18. Schmidt, C., Pierce, J., & Stoddard, S. (2016). The mediating effect of future expectations on the relationship between neighborhood context and adolescent bullying perpetration. Journal of Community Psychology, 44(2), 232–248. https://doi.org/10.1002/jcop.21761
19. Seals, D., & Young, J. (2003). Bullying and victimization: Prevalence and relationship to gender, grade level, ethnicity, self-esteem, and depression. Adolescence. 38(152), 735-746.
20. Wang, J., Iannotti, R.,& Nansel, T. (2009). School bullying among adolescents in the United States: Physical, verbal, relational, cyber. Journal of Adolescent Health, 45 (4), 368-375.

21. Waters, S., & Mashburn, N. (2017). An investigation of middle school teachers' perceptions on bullying. Journal of Social Studies Education Research, 8(1), 1–34.
22. Williford, A., & Zinn, A. (2018). Classroom-level differences in child-level bullying experiences: implications for prevention and intervention in school settings. Journal of the Society for Social Work and Research, 9(1), 23–48.
23. Zimmerman, M. A., Bingenheimer, J. B., & Notaro, P. C. (2002). Natural mentors and adolescent resiliency: A study with urban youth. American Journal of Community Psychology, 30(2), 221–243.

Examining The Plays That Preschool Children Prefer and The Characteristics Shaping Them Using Draw and Tell Technique

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Abstract

In this study, the play preferences of 80 five-year-old children, 40 girls and 40 boys, from four schools in Turkey and the characteristics that shape their preferred plays were examined. The research was designed by descriptive method, which is one of the qualitative research patterns, and the data were collected using draw-and-tell technique. Crayons and drawing papers were distributed to the children participating in the study and they were asked to draw a play they wanted to play. During the drawing, the children were interviewed by asking questions. Thematic analysis method was used in the study; open coding was performed to group the drawings and interview records of the children under the themes and sub-themes. As a result of thematic analysis, five main themes were created regarding the plays preferred by children and how and where they prefer to play them. The results showed that all children preferred open-ended plays, they mostly prefer modern plays (50%) (type of play), playing with friends (44%) (social connection), dynamic plays (69%) (physical function), indoors plays (54%) (playground) and to use ready-made toys (42%) (toys used).

Keywords: Children, play, toys, physical function, social connection.

Introduction

Pre-school education, which is free-of-charge and optional in state schools, is considered to be very important in Turkey. It is aimed to gradually include pre-school education within the scope of compulsory education, to support all children by increasing the quality of education services and to establish common quality standards (Ertuğrul, 2019; MoNE, 2018). Analyzing the interests and needs of pre-school children in Turkey will provide pedagogical support to teachers.

In preschool period, children show a rapid growth and development, and the basis of their learning experiences is formed. Interventions in this period, to be made through education can create permanent effects on the child's cognitive capacity, social behavior and personality (Bredekamp, 2015). Therefore, to support the development of the children, teachers should prepare qualified programs considering their individual differences, and provide children with various activities (Wortham, 2006). In providing children with the necessary support, one of the most effective learning ways is play, in which children willingly take part and have fun (Abacı & Çıtak, 2017). Allowing children to play and providing them with positive and pleasurable learning environments are among the objectives of preschool education (Fisher, Hirsh-Pasek, Golinkoff, Singer, & Berk, 2011). In this study, the preferences of 80 children, attending preschool education in four schools in Turkey and the characteristics that shape their preferred plays were examined using draw-and-tell technique. As far as is known, no research targeting this cultural structure has been conducted before, by using draw-and-tell technique.

The Significance of "Plays Preferred by Children and the Characteristics of these Plays" Study

There are some reasons that were considered important in the planning of this research involving the plays preferred by children and the characteristics of these plays. One of the most important reasons is that play was found to be of fundamental importance for the learning and development of children (Gialamas, Mittinty, Sawyer, Zubrick, & Lynch, 2014; Özdenk, 2007; Pellegrini, 2011; Pinto, Pessanha, & Aguiar, 2013 Türkmenoğlu, 2005). Plays is a key element for the development that requires learning (Smith & Hart, 2004). Therefore, the play is used as a method facilitating the development and learning of children and play activities are planned accordingly (Theobald et al., 2015). The play, which allows to learn many concepts and skills, can also be a guide for teachers in the preparation of educational programs as an activity, in which children show their own traits (Saracho, 2012). Teachers are expected to observe children's play preferences in order to provide a qualified education that provide children with the opportunity to learn and develop (Koçyiğit, Tuğluk, & Kök, 2007).

The second important reason is the concept of child participation developed by Laevers (2003). Participation indicates a process in which the child exists as a learner. Observable qualities of the children participating in the learning process come in view, which provides the teacher with information about possible interventions in the participation process. These two emerging factors can be considered as important indicators in terms of assessing the quality and efficiency of the educational process (see Miranda, Larrea, Muela, & Barandiaran 2017). Participation of children in play

activities is possible with the practices in which they are encouraged to play games that they like and enjoy. Unlike adults, children, who feel happy when they participate in an activity they love, have their own sense of entertaining play, (Howard & McInnes, 2013). In order to ensure and increase the participation of children in play activities, children should express the play that they enjoy, and these plays should be understood by the teachers.

In addition, since the preschool education environment allows interaction with peers in plays, it creates social contexts and provides an opportunity to examine the plays in the social context (Coplan, Rubin, & Findlay, 2006). Play often tends to take place among children (Goncu & Weber, 2000) and it is perceived as a play by the children only when it is played with their peers (Robson, 1993). The social plays that children play with their peers allow the use of cognitive and communicative skills in the process of self-expression and understanding the other party (Howes, 2011). During the plays that children define as activities without teachers (Robson, 1993; Howard, Jenvey, & Hill, 2006), the instructions given by teachers may cause a decrease in children's playing behavior (Wilcox-Herzog & Kontos, 1998). Therefore, play activities should not be planned as activities that look like games from an adult's perspective, but activities that adopt an entertaining approach in which the knowledge gained about the child's sense and understanding of play are used (Howard et al., 2006).

It is thought that there are limited number of studies about children's play preferences and the characteristics of these plays in Turkey, and that these studies do not adequately represent the thoughts of children in preschool period. It has been observed that the studies were mostly conducted to determine the contribution of the play to the development of the child (Erbay & Durmuşoğlu Saltalı, 2012; Koçyiğit, Tuğluk, & Kök, 2007; Mangır & Aktaş, 1993; Ulutaş, 2011); the studies that involve identifying children's play preferences were based on teacher opinions (Kaçar, 2016; Özdemir & Ramazan, 2014) and observing children (Özdemir, 2014; Taş, 2018; Uygun & Kozikoğlu, 2019); children were asked to show the play they prefer among the offered choices (Sapsağlam, 2018); some studies attempted to identify the plays by asking to draw the toy (Aksoy & Baran, 2017); and interviews were conducted with children (Koçyiğit & Baydilek, 2015; Tuğrul, Aslan, Ertürk, & Altınkaynak, 2014). This study used draw-and tell technique for identifying the play preferences and the characteristics of the plays in the context of Turkey. This technique, which allows children to present their perspective by using drawing and explanation together, enriches the interpretation of the collected data (Cammisa, Montrone, & Caroli, 2011). To contribute to the existing literature, we attempted to analyze children's plays in a new cultural context: namely Turkey.

The Characteristics that Shape Children's Plays

Children perceive the activities preferred by themselves, free of adult control and intervention, as plays (Howard et al., 2006; Wong, Wang, & Cheng, 2011). Therefore, according to the children, for an activity to be a play it should include entertainment, toys, preference right and action (Koçyiğit & Baydilek, 2015). Therefore, the play is a free activity in which children act freely according to their own wishes (Sun & Seyrek, 1997). In free activities, which are called unstructured, children determine the play they want, as well as the time, the way and the people they want to play with. Free plays are very important in their social, cognitive and creativity development (Santer, Griffiths, & Goodall, 2007; Tuğrul, Boz, Uludağ, Aslan, Çelik, & Çapan, 2019).

Children tend to play socially and communicating with their peer during this period (Coplan, Rubin, & Findlay, 2006). Social participation of the children in the plays is classified as solo, parallel and group (Parten, 1932). Children go through social interaction stages by beginning with parallel play. Group plays played with peers are seen as plays that allow social participation by providing the highest level of social interaction (Howard et al, 2006; Miranda et al., 2017).

In addition, children prefer to play freely the plays that they enjoy, in an imaginary way and in open spaces (Nicholson, Kurnik, Jevgjovikj, & Ufoegbune, 2011). Regarding the plays that children play in open spaces, the behavior of playing with natural toys obtained from nature also come to the fore (Aslan, 2010; Tuğrul et al., 2019). However, in some studies, it was found that children are moving towards stationary and individual indoors plays that are not dynamic (Akçay & Özcebe, 2012; Alabay & Güder, 2018; Gündoğdu, Seytepe, Pelit, Doğru, Güner, Arıkız, Akçomak, Kale, Moran, Aydoğdu, & Kaya , 2016; Koçyiğit & Baydilek, 2015; Sapsağlam, 2018). Factors such as increased insecurity towards the environment with the changing social life and rapid development of technology cause children to turn to indoor virtual games played in computers and tablets (Fırat, 2013). But, playing in natural areas stimulates children's curiosity, environmental awareness, and supports the development of speaking and listening skills (Waite, 2010).

Theoretical Framework

Studies on children's plays are important in terms of cognitive (Piaget, 1962) and social constructivism (Vygotsky, 1978) development theories. Piaget (1962) stated that children structure the knowledge in themselves; he emphasized that the play allows to understand the feelings and thoughts of peers by interacting with other children and supports children's social and emotional development.

In addition to gaining skills such as sharing, conflict resolution, and self-defense by interacting with their playmates, children who play develop a sense of resilience to future challenges (Pellegrini & Smith, 1998). According to Vygotsky's (1978) social constructivism theory, play is a natural learning tool that enables children to reach their potential levels as a result of interacting with each other. Play is the most natural learning environment where children repeat, reinforce and try what they see and hear (Yavuzer, 2000). In Vygotsky theory, he emphasizes the importance of the play in learning and recommends that educators present the opportunity for every child's development and learning with play experiences (Taylor and Boyer, 2020). The opportunity to play, which is a way of learning life in preschool period, should be given to children and the content of education should be enriched with plays (Emslie and Mesle, 2009) because children increase their conceptual abilities, world knowledge and abstract thinking through the play (Taylor and Boyer, 2020). Studies have shown that the play facilitates learning by enabling children to develop and increase their knowledge and skills as a result of interacting with others and the environment (e.g., Ashiabi, 2007; Han, Moore, Vukelich, & Buell, 2010; Weisberg, Zosh, Hirsh-Pasek, & Golinkoff, 2013). Therefore, these theoretical perspectives emphasize that the play that enables children to develop and learn by social interaction is very important.

Purpose of the Current Study

There may be differences between the play preferences and play characteristics of children from different cultures (Duman & Temel, 2011). The purpose of this study is to examine children preferred plays and the characteristics shaping these plays using draw-and-tell technique in four pre-school classes in Turkey. In the current study, children were asked to draw the plays they prefer, and questions were asked about their drawings.

The following research question and two sub-questions were addressed:

- What are the plays preferred by Preschool Children and what are the characteristics that shape these plays?
- What are the play preferences of preschool children?
- What are the characteristics that shape the plays of preschool children (playground, material, players)?

Methodology

In this study, a descriptive research based on qualitative analysis was conducted to reveal the plays that children prefer. "Draw-and-tell" technique was used within the scope of the descriptive research. The draw-and-tell technique is a method that reveals the perceptions and experiences of children by minimizing the impact of the researcher and it is very suitable for a research conducted with children with its inclusiveness (Angell, Alexander, & Hunt,

2015). Children can generate their feelings and thoughts, which can be complex or abstract, by drawing (Horstman, Aldiss, and Richardson, 2008). Therefore, draw-and-tell technique is a child-centered method that supports children's thinking processes and enables the communication with children (Morrow & Richards, 1996).

Participants

80 five-year-old children, 40 girls and 40 boys, from a total of four schools (two kindergartens and two nursery classes of primary school), have participated in the study. Homogeneous sampling, from purposive sampling methods (Patton, 2014), was used to determine the participants. All children participating in the research were children with no special needs and normal development. Schools have medium sized playgrounds for children, which are comprised of wood, grass and concrete ground. There is also equipment such as swings and slides in the school gardens. Computers and similar technological tools are not used in schools apart from learning purposes. Moreover, children are not allowed to bring their own toys from home.

Data Collection

In the study, the data were collected using draw-and-tell technique, by drawing a picture and interviewing about the drawing. The application was performed in the activity time of the curriculum; children were seated in a way that they were not affected by each other and told “Draw me a play you want to play". The activity lasted approximately 20-25 minutes. To make sure that children don't feel like testing (Wiseman Roseman, & Lee, 2018), the questions were asked in line with the prepared interview form while the children were drawing, and their voice was recorded. The studies of Cammisa, Montrone, & Caroli (2011) and Wiseman, Roseman, & Lee (2018) were used while compiling the interview questions used in the research. The children were asked the following questions: "What play are you playing? Who are you playing with? What are you doing in the play? Where are you playing?". Each figure in the children's drawings was asked what it represented, and the answers were noted. It was ensured that the children were able to focus and not affected by each other while drawing.

Data Analysis

The data were analyzed using thematic analysis. Thematic analysis focuses on the discovery and explanation of the themes in the data obtained in qualitative research. Codes representing the themes identified in the thematic analysis process are developed and applied to the raw data (Guest, MacQueen, & Namey, 2012). Open coding was performed to group the drawings and interview transcripts under the themes and sub-themes. Open Coding involves

labeling concepts, defining and developing the categories according to their characteristics and dimensions (Khandkar, 2009). While documenting and coding the data obtained in the research, the data collected from children were coded as A, B C and D according to schools. Created themes and sub-themes were separately coded by the researcher and an independent expert, and the encoder reliability among the coders was checked. The reliability of the data analysis was tested using Miles and Huberman's (1994) formula; Agreement Percentage = [Agreement / (Agreement + Disagreement) X 100]. Accordingly, the agreement percentage among coders was found to be 96% for the drawings and 98% for the interviews.

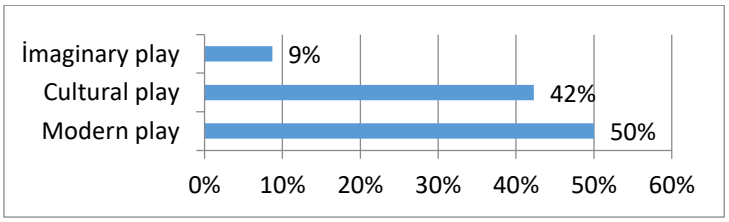
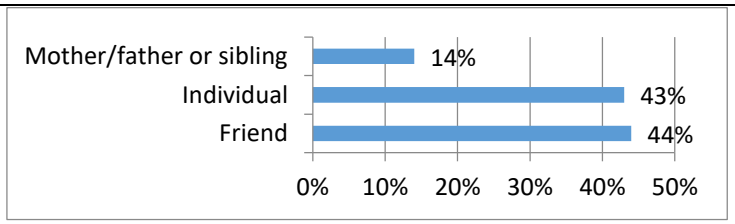
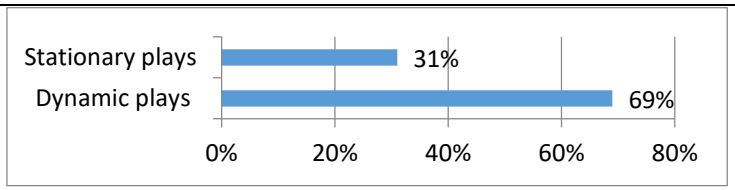
Results

This part includes the findings obtained as a result of analyzing children's pictures and the data obtained from interviews.

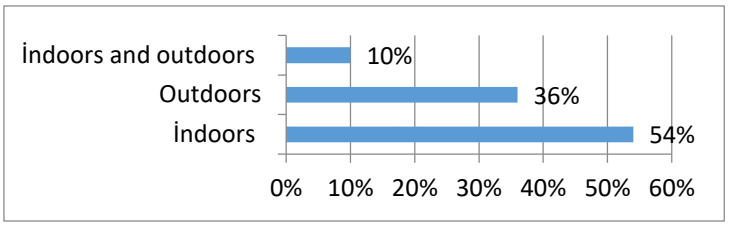
Themes

As a result of thematic analysis, five main themes emerged from the drawings and responses of the participants. Themes illustrate the characteristics of the plays that children prefer, and how and where they prefer to play.

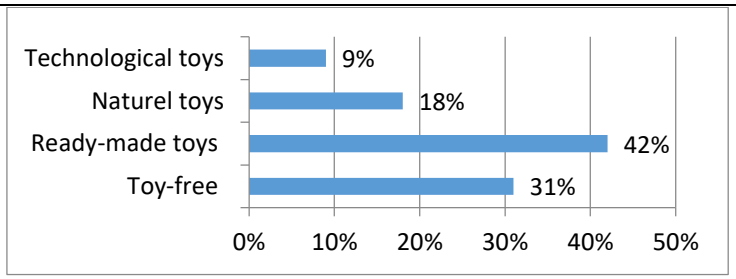
Table 1
Participants' Preferred Activity

Open-ended toy	
Social connections	
Physical function	

Playground



Use of toys

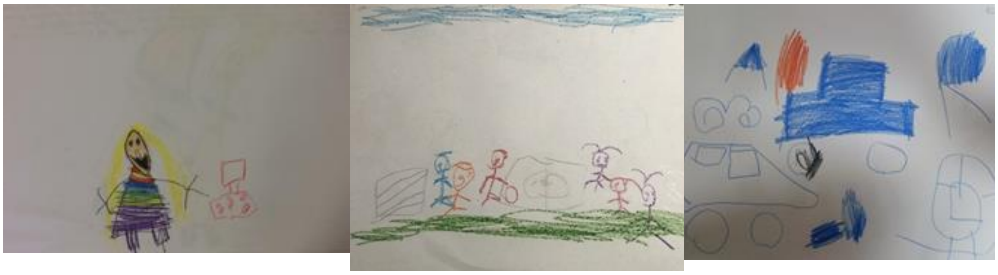


Open-Ended Play

Children participating in the study preferred the plays played without any adult's direction towards a learning goal. In open-ended plays, which are unstructured, the rules and goals of the play are set by the children and they direct the play according to their own ideas (Sturm, Bekker, Groenendaal, Wesselink, & Eggen, 2008). It was observed that children love to play the plays that they like and have fun, both in open and close spaces; they are willing to play with friends, family members or just by themselves.

Three different sub-themes of play were identified under open-ended play theme, namely cultural, modern and imaginary plays. The plays that the child manages the playing process without any limitations and that are generally played individually are named as imaginary plays (Bardak, 2018); the plays that spread and develop with contemporary life are called modern plays (Sormaz & Yüksel, 2012); whereas the plays that come from the past and that carry the values of the community are called cultural plays (Özyürek, Tezel Şahin & Gündüz, 2018). In the research, 50% of children drew modern, 42.3% cultural, and 8.7% imaginary plays and mentioned in their statements (see Table 1). Children were observed to prefer modern plays such as ready-made toys, computers/tablets or football, which are commonly known and played today. Below are examples of some modern plays that children prefer to play.

Figure 1
Children's Modern Play Preferences



C14: "I'm playing with my computer at home."

B2: “We’re playing football with my friends, this is the football ground, these are the players, we are all running after the ball.”

A20: “I’m playing with my toys at home.”

Regarding cultural plays, which was second most preferred play type, the children expressed 8 different cultural plays such as hopscotch, playing house, blind man's buff. Playing cultural plays that come from past to present and that reflect the characteristics of the community, protects the cultural heritage by transferring it to the next generations (Bay & Bay, 2019; Girmen, 2012). Below are examples of some cultural plays that children prefer.

Figure 2
Children's Cultural Play Preferences

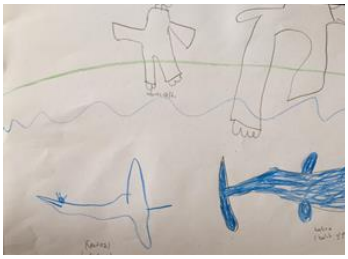
A17: “I'm playing hide and seek. I hid behind the door. ”

C20: "I love to play hopscotch."

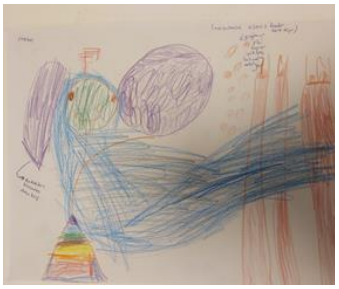
D11: “I’m playing house with my sibling.”

In the imaginary plays, children told about the play they created through their pictures. Children can play imaginary plays that they developed by focusing on their own ideas around a topic they choose. These plays, which children can play for days and weeks, can also be seen as a phase of the creative play (Kaçar, 2016). Below are examples of some imaginary plays that children prefer.

Figure 3
Children's Imaginary Play Preferences



B4: "There is a whale, it eats fish, there is a rough ray here, rough ray swims"



A4: “I drew a huge bird with very big ears; balls, almost as hard as diamonds, are thrown from the high building like rain, frighten away the bird among the towers."

D6: "I’m playing rocketry."

Social Connections:

The review of the plays preferred by children revealed that 42.5% of them prefer to play individually, whereas 57.5% prefer to play together, and social connections theme appeared. While drawing their plays, they also focused on who they are playing with. Children told that they were playing with their friends, parents or siblings. Some children who prefer imaginary plays and some modern plays and who prefer to use toys or technological tools did not draw any people with who they want to play (42.5%); they did not stated another person when asked "Who are you playing with?". It was found that 43.8% of the children wanted to play their preferred plays with their friends and 13.7% of them wanted to play with their parents or siblings. Children were often observed to prefer imaginary plays and the plays involving toys or technological tools (computers, tablets, etc.) individually, which are mostly included in modern plays; whereas other modern plays and cultural plays were preferred to be played together. It was also found that children prefer some plays such as snowballs and hopscotch, which are used to be played together, to be played alone.

Table 2
Results of Thematic Analysis

Mother/father or sibling	A3: I'm playing hide and seek at home with my sister. I hid under the bed. B17: We are playing in the park with my mom. C22: We are playing hopscotch with my grandmother in the garden of our house. C23: I'm playing football with my mom and dad. C27: We are playing hopscotch with my grandmother, aunt and mom. D11: We are playing house at home with my sibling.
Friend	B2: We are playing football with my friends; this is the football ground. B9: We are playing hopscotch in the garden with my friend. C20: I'm playing hopscotch with my friends in the school garden. C26: I'm playing football on the ground with my friends. D2: I'm playing hide and seek with my friends. I hid behind the hut. D8: I'm playing blind man's buff in the garden with my friends.
Individual	A11: I'm playing on the computer. This is my combat character; I'm getting ready to fight using my soldier. A15: I'm playing ninja turtle game on the computer. A22: I'm playing with my animal toys. B5: The car skips rope and then falls into the mud. B12: I like to play alone. Here I am building a tower by stacking the cubes. C17: I'm playing with my dolls and cars.

Physical function

It was found that the playing styles of the plays preferred by children had different functions physically. Some of the preferred plays under the theme of physical function were observed to be dynamic, while others were still and stationary. Regarding the plays according to their physical function grouped under dynamic and stationary sub-themes, technological games, some modern games played with toys and toy block-type materials and chess (31%) were found to be preferred as stationary plays, whereas some modern and

cultural plays such as football, volleyball, hopscotch, chase that require jumping and running, were preferred as dynamic plays (69%). The movement element in the plays was observed to be related to the social connections of the children. The plays played individually were mostly stationary, whereas the plays played with friends or family members were dynamic plays.

Playground

The playground where children want to play has emerged as another characteristic of their preferred plays, which was characterized with indoor, outdoor and indoor or outdoor sub-themes. The plays that children preferred to play close spaces, such as school, classroom and home, are modern plays with toys, technology games played by looking at a screen such as computer-games, or some cultural plays such as playing house, hide and seek (54%). For example: "A1: We're playing house with my mother at home. A12: I'm playing with my concrete truck at home. C3: I'm playing with the tablet in my house. C10: I'm driving my car in the classroom". The plays, that children preferred to play in open spaces, such as garden, park, playground, included the plays such as football, basketball, hopscotch, chase (36%). For example: "D3: I'm playing hide and seek with my friends outside. D7: We're playing chase in the garden. C24: We are playing football with my father. This is the garden of our house". Children stated that they can play imaginary plays and remote-control car plays both indoors and outdoors (10%). For example: "A4: I can play with my bird everywhere. B11: For example, the balloon turns red when it bounces, there is a movement for each color. I can play with my balloon everywhere. C6: I can play anywhere with my remote-control car. "

Use of Toys

It was observed that some materials are used in the plays preferred by children and they included toys in the drawing and explanation of the plays. The play materials classified under Use of Toys theme were grouped under ready-made, natural, technological and toy-free sub-themes. Since play materials are not used in imaginary plays and in some cultural plays, such as and hide and seek, these plays were classified as toy-free (31%); stone and snow used in hopscotch and snowball plays were natural materials (18%), computer and tablet were technological tools (9%), and materials such as cars, toy-block, dolls were ready-made toys (42%).

Discussion

In this study, draw-and-tell technique and drawings were used to understand the play preferences of children and the characteristics of their preferred plays in Turkey. The children participating in the research showed a desire to play modern, cultural or imaginary open-ended plays with varying

social connection, physical function, playground and toy preference. These themes were discussed over the relevant literature to identify the implications for preschool educators.

Children's Play Preferences

Open-Ended Plays

The daily flow of pre-school curriculum implemented in Turkey includes unstructured "play time" activity. During this period, children play freely in their preferred centers, garden or open spaces (MoNE, 2013). In the current study, children defined play as unstructured, open-ended plays which are at their discretion, and which are not within the scope of a teaching objective. The open-ended play time activity included in the curriculum might have an impact upon children's play preferences. Similar results were obtained in previous studies (Noonan, Boddy, Fairclough, & Knowles, 2016; Wiseman et al., 2018; Tuğrul et al., 2019).

Even though some children stated the participation of family members in their plays, it was observed that children wanted to play autonomously. The involvement or intervention of adults creates pressure on the child's play and restricts them from acting comfortably (Howard & Mclnnes, 2013). However, it should not be considered that children's plays should be completely free of adult guidance. Many studies have been carried out about how teachers can participate in unstructured open-ended plays (Özgünlü & Çelik, 2018; Singer, Nederend, Penninx, Tajik, & Boom, 2013; Tarman & Tarman, 2011; Yang, 2013). The fact that the teacher provides the child with the opportunity to choose and makes the child use his/her own preferences, allows the child to perceive the activity as a play and focus on it; and allows him/her to feel more competent without thinking about the risk of failure and to be more involved with the activity (King & Howard, 2016). During the activity, teachers can take the role of preparing the environment, observer, playmate or supporter in case of problems (Özgünlü & Çelik, 2018; Singer et al., 2013; Tarman & Tarman, 2011; Yang, 2013).

The current study revealed that children play modern, cultural and imaginary open-ended plays. Among these plays, mostly modern plays, where ready-made toys and technological devices are frequently used, were preferred. In the study conducted by Sapsağlam (2018) in Turkey about five-year-old children's play preferences among the offered plays, most preferred plays were the ones involving technological devices. In the study of Özdemir and Ramazan (2014), in which children's play preferences have been identified based on teacher perspectives, it was found that girls mostly preferred playing house, which is a cultural play, whereas boys preferred to play modern plays with ready-made toys. Today, technological developments and the increase in

urbanization have an impact on children's play preferences as well (Bento & Dias, 2017).

Social Connections

In the current research, the majority of children expressed their friends and family members, who have an important role in social development, as playmates in their plays. Similarly, in their study examining preschool children's play behavior in Turkey and United States, Duman and Temel (2011) concluded that children mostly play social plays with their peers. In the study examining the play types that children prefer in the classroom, Kaçar (2016) observed that children mostly preferred peer-plays, which are also referred as group plays. Howard et al. (2006) conducted a study with 92 preschool children, about how children classify play and learning according to social context, and they reached the conclusion that the absence of the teacher is associated with the play and that the child makes a connection between the peers and the play. In the current study, children stated that they prefer to play open-ended plays through social connections, which can be considered as an effect of the absence of teacher.

In addition, in preschool period children tend to choose their playmates according to gender (Golombok, Rust, Golding, Zervoulis, Croudace, Hines, 2008). Taş (2018) have examined children's play preferences in terms of gender by observing preschool children in their free play time and by interviewing teachers and have found that children prefer to play with their friends of the same sex. The current study showed that children who stated to play with their friends, also indicated the gender of their playmates as: “I'm playing chase with my friend ……..” The fact that children stated to play with either their friends or family members, can contribute to the positive disposition that the children have towards social play in open-ended plays.

Physical Function

In the research, it was observed that children mostly prefer plays that require them to move physically, either with or without a toy. Dynamic plays strengthen children's muscles and improve their body coordination (Kaçar, 2016). In an experimental study where Ogelman, Gündoğan, Sarıkaya and Önder (2016) investigated the effect of unstructured and dynamic play practices on five-year-old children’s peer relationships, they concluded that social behavior levels of the children playing unstructured and dynamic plays increases, whereas their peer violence exposure and physical aggression levels decrease. In this context, the children's high preference of dynamic plays in the current study should be interpreted positively.

In the study of Barbosa and Oliveira (2016) where they reviewed seven studies, they found that the plays initiated by children involve more physical

activity, whereas the plays initiated by the adults have low physical activity. Regarding the results of this study, open-ended unstructured plays that do not involve teacher intervention are thought to direct children to the plays that allow them to move more.

Playground

Outdoor plays allow children to observe their surroundings and move their bodies in a coordinated manner (Morrison, 2007). In addition, dynamic plays that are played in open spaces are effective in strengthening social ties between children and reducing negative behaviors (Ogelman et al., 2016). In the experimental study of Yıldırım and Akamca (2017), where they implemented outdoor activities for preschool children, they observed improvements in children's cognitive, social-emotional, linguistic and motor skills. Outdoor plays contribute to children's physical development and enhance their immunity by ensuring that they receive sunlight and natural elements in nature, they also increase their attention levels and makes them feel better (Bento & Dias, 2017). Despite many benefits of outdoor plays, which are mentioned in the literature, the current research discovered that the plays preferred by children were mostly indoor plays. Similarly, Clements (2004), in his research examining children's playing behavior in open spaces, concluded that very little time was spent on outdoor plays due to the impact of television and digital media addiction on children.

Children's play preferences may vary according to different factors. However, today, children's unstructured outdoor activities seem to decrease day by day (Bento & Dias, 2017; Kemple, Kenney, & Smith-Bonahue, 2016). Research emphasizes the importance of natural environments that allow children to discover and that support their creativity and collaboration (Tuğrul et al., 2019; Zamani, 2016). Given the positive impact of outdoor plays on children's development, teachers are recommended to provide children with play opportunities in natural settings (Bento & Dias, 2017; Kemple et al., 2016; Miranda et al., 2017). In this context, placing more outdoor play materials and natural materials such as water and sand that children can use, will allow children to prefer outdoor plays more and participate in them (Miranda et al., 2017; Wiseman et al., 2018; Zamani, 2016)

Use of Toys:

The study revealed that children prefer plays that they use ready-made toys, as well as their preferences for the plays without toys. While the parents were observed to make their own toys in the past (Holmes, 2012), today's children mostly prefer ready-made toys such as cars and babies. Previous studies also support the results of the current study (Holmes, 2012; Özdemir, 2014; Tuğrul, Ertürk, Özen Altinkaynak, & Güneş, 2014).

Ready-made toys are defined as materials sold for children to play (Nelson, 2005). However, playing with natural materials such as sand, stone and water enables children to know the nature and develops their creativity (Kaçar, 2016). In the study where Tuğrul et al. (2019) examined preschool children's play opportunities at school, based on the opinions of 460 teachers, they reported that children mostly prefer to play with natural materials in open spaces. Although some studies have attempted to determine the differentiation of toy preferences according to children's gender (Martin, Eisenbud, & Rose, 1995; Nelson, 2005; Spinner, Cameron, & Calogero, 2018; Todd, Fischer, Di Costa, Roestorf, Harbor, Hardiman, & Barry, 2018), natural materials such as water, soil, stone present in open spaces attract the attention of all children and provide them with many play options (Bento & Dias, 2017). In this context, unstructured and manipulable natural environments including trees, flowers and shrubs should be formed in educational environments, which would allow children to play the play they want with the toy they want (Fjortoft & Sageie 2000; Malone & Tranter, 2003; Geney, Özsoy, & Bay, 2019). The results of the current research highlight the need to use natural materials as toys for children. Teachers are advised to understand the contexts that shape children's play and toy preferences

Draw-and-Tell Technique

The draw-and-tell technique is a method for conducting interviews and facilitating the interpretation by focusing the plays that children preferred in their drawings; it was used to understand children's play preferences and the characteristics of their preferred plays. Drawings gives a meaning to the noticeable and unnoticeable characteristics of children's social environments and plays through shapes (Engel, 1995). In addition, drawings allow the child's experiences to be arranged before sharing (Gross & Hayne, 1998). What children say about their drawings reveals their feelings embedded in their drawings (Hanney & Kozlowska, 2002). In this way, children can talk more easily about the events that they cannot define (Gross & Hayne, 1998; Wesson & Salmon, 2001). The draw-and-tell technique is considered as a child-centered method that reduce social demand potential of the researcher on the child during interview (Gross & Hayne, 1998). Therefore, allowing children to draw before conducting an interview is a very effective strategy (Driessnack, 2005). As the drawings are easier to interpret, the drawings of five-year-old children were evaluated in the study. It is recommended position children in a large table, at a distance to prevent them from affecting the others and cheating (Wiseman et al, 2018).

Limitations of the Study and Direction for Future Research

This study, conducted in the kindergartens in Turkey, has expanded the scope of the research on children's play preferences in which draw-and-tell technique was employed. However, there are some limitations. Data were collected from 80 participants in 4 schools with medium socio-economic level, in a province of Turkey. It should be considered that the play preferences of children may change with demographic characteristics of the participants or with cultural differences. Considering that the schools in which the participants were recruited have similar educational environments, the themes obtained in the study may not reflect the diversity of children's perspectives.

In addition, since the study is the first research addressing play preferences of preschool children using draw-and-tell technique in Turkey, the results of the study should be supported and confirmed by other researches.

For future research in Turkey, it is very important to work on larger samples. It is recommended for researchers to obtain a holistic picture by including the variety, wealth, diversity and contradictions that may be in the universe. In this context, according to the maximum diversity in qualitative research sample (Yıldırım and Şimşek, 2013) children with different socioeconomic levels in different regions/provinces of Turkey can be identified as the study group by researchers. The play preferences of children can be generalized by taking larger samples through quantitative research. The factors affecting children play preferences and the impacts of these plays on them should be investigated. The plays that children choose to play and the relationships between the play and the child can be examined using observation-based sequential analysis.

Conclusion

Pre-school children's play preferences and the characteristics of these plays provide educators with important information. The findings will help to support children's participation in entertaining and creative activities in natural settings (Wiseman et al., 2018). Children prefer open-ended plays, which shows their desire for unconfigured plays. Children often prefer dynamic plays played together (family/friends), which will allow the development of play activities in this direction. In addition, in order to ensure that choosing indoor plays played with ready-made toys doesn’t pose a risk for children, the need to organize play activities in line with contemporary research results was revealed.

References:

1. Akçay, D., & Özcebe, H. (2012). Okul öncesi eğitim alan çocukların ve ailelerinin bilgisayar oyunu oynama alışkanlıklarının değerlendirilmesi. *Çocuk Dergisi, 12*(2), 66-71.
2. Aksoy, P., & Baran, G. (2017). Annelerin cinsiyet rollerine ilişkin özellikleri ile çocukların oyuncak tercihleri ve oynadıkları oyun türleri arasındaki ilişki üzerine bir çalışma. *Eğitimde Nitel Araştırmalar Dergisi, 5*(1), 102-136.
3. Alabay, E., & Güder, S. Y. (2018). Changing face of plays: A comparative research of childhood plays of older adults and plays of today's. *Bartın Üniversitesi Eğitim Fakültesi Dergisi*, *7*(1), 237-259.
4. Angell, C., Alexander, J., & Hunt, J. A. (2015). 'Draw, write and tell': A literature review and methodological development on the draw and write research method. *Journal of Early Childhood Research*, *13*(1), 17-28.
5. Arabacı, N., & Çıtak, Ş. (2017). Okul öncesi dönemdeki çocukların "'oyun'" ve "'açık alan (bahçe)'" etkinlikleri ile ilgili görüşlerinin incelenmesi ve örnek bir bahçe düzenleme çalışması. *Mediterranean Journal of Educational Research*, *11*(21), 28-43.
6. Aslan, F. (2010). *Okul öncesi eğitim kurumlarında dış mekan tasarımında çocukların beklentilerinin belirlenmesi* [Unpublished master's thesis]. Ankara Üniversitesi, Ankara.
7. Ashiabi, G. S. (2007). Play in the preschool classroom: Its socioemotional significance and the teacher's role in play. *Early Childhood Education Journal, 35,* 199–207. doi:10.1007/s10643-007-0165-8
8. Barbosa, H. C., & de Oliveira, A. R. (2016). Physical activity of preschool children: A review. *Journal of Physiotherapy and Physical Rehabilitation, 1*(2), 1-5. doi:10.4172/2573- 0312.1000111
9. Bardak, M. (2018). Oyun temelli öğrenme. In A. Gürol (Eds.), *Erken çocukluk döneminde öğrenme yaklaşımları* (pp. 207-230). İstanbul: Efe Akademi.
10. Bay, D. N., & Bay, Y. (2019). Balkanlardaki çocuk oyunları. *Sınırsız Eğitim ve Araştırma Dergisi*, *4*(2), 200-223.
11. Bento, G., & Dias, G. (2017). The importance of outdoor play for young children's healthy development. *Porto Biomedical Journal*, *2*(5), 157-160.
12. Bredekamp, S. (2015). *Erken çocukluk eğitiminde etkili uygulamalar*. (Effective practices in early childhood education, 2nd Edition). (Hatice Zeynep İnan & Taşkın İnan, Trans.). 343-345. Ankara: Nobel.
13. Cammisa, M, Montrone, R, & Caroli, M (2011) Development and results of a new methodology to perform focus group with preschool

children on their beliefs and attitudes on physical activity. *International Journal of Pediatric Obesity 6*(2), 22–27.
14. Clements, R. (2004). An investigation of the status of outdoor play. *Contemporary issues in early childhood*, *5*(1), 68-80.
15. Coplan, R. J., Rubin, K. H., & Findlay, L. C. (2006). Social and nonsocial play. In D. P. Fromberg & D. Bergen (Eds.), *Play from birth to twelve: Contexts, perspectives, and meanings* (pp. 75-86). New York, NY: Garland Press
16. Driessnack, M. (2005). Children's drawings as facilitators of communication: A meta-analysis. *Journal of Pediatric Nursing, 20*(6), 415-423.
17. Duman, G., & Temel, Z. F. (2011). Türkiye ve Amerika Birleşik Devletleri'nde anasınıfına devam eden çocukların oyun davranışlarının incelenmesi. *Kırıkkale Üniversitesi Sosyal Bilimler Dergisi, 1*(1), 279-298.
18. Emslie, A., & Mesle, C. R. (2009). Play: The use of play in early childhood education. *Gyanodaya*, *2*(2), 1-26.
19. Engel, B. S. (1995). *Considering children's art: Why and how to value their works*. Washington, DC: National Association for the Education of Young Children.
20. Erbay, F., & Durmuşoğlu Saltalı, N. (2012). Altı yaş çocuklarının günlük yaşantılarında oyunun yeri ve annelerin oyun algısı. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi (KEFAD), 13*(2), 249-264.
21. Ertuğrul, B. (2019). *Türkiye'de 1990-2019 yılları arasında uygulanan okul öncesi eğitim politikalarının değerlendirilmesi* [Unpublished master's thesis]. Hacettepe University, Ankara.
22. Fırat, H. (2013). Çocuk oyunları-eğitim ilişkisi: Bezirgan başı örneği. *Electronic Turkish Studies, 8*(13), 885-896.
23. Fisher, K., Hirsh-Pasek, K., Golinkoff, R. M., Singer, D. G., & Berk, L. (2011). Playing around in school: Implications for learning and educational policy. In A. D. Pellegrini (Ed.), *The Oxford handbook of the development of play* (pp. 341–362). New York, NY: Oxford University Press.
24. Fjortoft, I., & Sageie, J. (2000). The Natural environment as a playground for children: Landscape description and analyses of a natural landscape. *Landscape and Urban Planning 48*(1/2), 83-97.
25. Geney, F., Özsoy, Z., & Bay, D. N. (2019). Okul Öncesi Eğitim Kurumlarının Dış Mekan Özellikleri: Eskişehir İli Örneği. *Eskişehir Osmangazi Üniversitesi Sosyal Bilimler Dergisi, 20*, 735-767.

26. Girmen, P. (2012). Eskişehir folklorunda çocuk oyunları ve bu oyunların yaşam becerisi kazandırmadaki rolü. *Millî Folklor, 24*(95), 263-273.
27. Gialamas, A., Mittinty, M. N., Sawyer, M. G., Zubrick, S. R., & Lynch, J. (2014). Child care quality and children's cognitive and socio-emotional development: An Australian longitudinal study. *Early Child Development and Care, 184*, 1–21. doi:10.1080/03004430.2013.847835
28. Golombok, S., Rust, J., Golding, K., Zervoulis, T., Croudace, J., & Hines, M. (2008). Developmental trajectories of sex-typed behavior in boys and girls: A longitudinal general population study of children aged 2.5-8 years. *Child Development, 79*(5), 1583-1593. doi: 10.1111/j.1467- 8624.2008.01207.
29. Göncü, A., & Weber, E. (2000). Preschoolers' classroom activities and interactions with peers and teachers. *Early Education and Development, 11*(1), 93-107.
30. Gross, J., & Hayne, H. (1998). Drawing facilitates children's verbal reports of emotionally laden events. *Journal of Experimental Psychology: Applied, 4*(2), 163-179.
31. Guest, G., MacQueen, K. M., & Namey, E. E. (2012). *Introduction to applied thematic analysis.* Thousand Oaks, CA: SAGE.
32. Gündoğdu, Z., Seytepe, Ö., Pelit, B. M., Doğru, H., Güner, B., Arıkız, E., Akçomak, Z., Kale, B., Moran, İ., Aydoğdu, G., & Kaya, E. (2016). Okul öncesi çocuklarda medya kullanımı. *Kocaeli Üniversitesi Sağlık Bilimleri Dergisi, 2*(2), 6-10.
33. Han, M., Moore, N., Vukelich, C., & Buell, M. (2010). Does play make a difference? Effects of play intervention on at-risk preschoolers' vocabulary learning. *American Journal of Play, 3*, 82–105.
34. Hanney, L., & Kozlowska, K. (2002). Healing traumatized children: Creating illustrated storybooks in family therapy. *Family Process, 41*(1), 37-65.
35. Holmes, R. (2012). Children's play preferences in the Pacific Rim: Then and now. *Play: A polyphony of research, theories and issues, 12*, 27-66.
36. Horstman, M., Aldiss, S., Richardson, A., & Gibson, F. (2008). Methodological issues when using the draw and write technique with children aged 6 to 12 years. *Qualitative health research, 18*(7), 1001-1011.
37. Howard, J., & McInnes, K. (2013). The impact of children's perception of an activity as play rather than not play on emotional well-being. *Child: care, health and development, 39*(5), 737-742.

38. Howard, J., Jenvey, V., & Hill, C. (2006). Children's categorisation of play and learning based on social context. *Early Child Development and Care, 176*(3-4), 379-393.
39. Howes, C. (2011). Social play of children with adults and peers. In A. D. Pellegrini (Ed.), *The Oxford handbook of the development of play* (pp. 231–244). New York, NY: Oxford University Press.
40. Kaçar, S. (2016).*Okul öncesi normal gelişim gösteren 5-6 yaş grubu çocukların tercih ettikleri oyun türlerinin dil gelişimi ve problem çözme becerisi üzerine etkisinin incelenmesi* [Unpublished master's thesis]. Maltepe Üniversitesi, İstanbul.
41. Kemple, K. M., Oh, J., Kenney, E., & Smith-Bonahue, T. (2016). The power of outdoor play and play in natural environments. *Childhood education, 92*(6), 446-454.
42. Khandkar, S. H. (2009). *Open coding.* Retrieved from http://pages.cpsc.ucalgary.ca/~saul/wiki/uploads/CPSC681/open-coding.pdf (Accessed 13 February 2020).
43. King, P., & Howard, J. (2016). Free choice or adaptable choice: Self-Determination theory and play. *American Journal of Play, 9*(1), 56-70.
44. Koçyiğit, S., & Baydilek, N. (2015). Okul öncesi dönem çocuklarının oyun algılarının incelenmesi. *Yüzüncü Yıl Üniversitesi Eğitim Fakültesi Dergisi, 7*(1), s.1-28.
45. Koçyiğit,S. , Tuğluk, M.N., & Kök, M. (2007) Çocuğun gelişim sürecinde eğitsel bir etkinlik olarak oyun. *Kazım Karabekir Eğitim Fakültesi Dergisi, 16*, 324-342.
46. Malone, K., & Tranter, P. (2003). Children's environmental learning and the use, design and management of schoolgrounds. *Children Youth and Environments, 13*(2), 87-137.
47. Mangır, M., & Aktaş, Y. (1993). Çocuğun gelişiminde oyunun önemi. *Yaşadıkça Eğitim Dergisi, 26*(16), 14-19.
48. Martin, C. L., Eisenbud, L., & Rose, H. (1995). Children's gender-based reasoning about toys. *Child Development, 66*, 1453–1471.
49. Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. California: Sage.
50. Milli Eğitim Bakanlığı (MEB). (2018). *2023 eğitim vizyonu. Milli Eğitim Bakanlığı*. http://2023vizyonu.meb.gov.tr/doc/2023_EGITIM_VIZYONU.pdf (Accessed 04 February 2020)
51. Milli Eğitim Bakanlığı (MEB). (2013). *Okul öncesi eğitimi programı [Early childhood education curriculum]*. Ankara, Turkey: MEB.
52. Miranda, N., Larrea, I., Muela, A., & Barandiaran, A. (2017). Preschool children's social play and involvement in the outdoor environment. *Early Education and Development, 28*(5), 525-540.

53. Morrison, G. S. (2007). *Early childhood education today* (8th edition). Upper Saddle River, NJ: Merrill Prentice Hall.
54. Morrow, V., & Richards, M. (1996) Çocuklarla sosyal araştırma etiği: Genel bir bakış. *Çocuklar ve toplum 10,* 90-105.
55. Nelson, A. (2005). Children's toy collections in Sweden—A less gender-typed country? *Sex roles, 52*(1-2), 93-102.
56. Nicholson, J., Kurnik, J., Jevgjovikj, M., & Ufoegbune, V. (2015). Deconstructing adults' and children's discourse on children's play: Listening to children's voices to destabilise deficit narratives. *Early Child Development and Care, 185*, 1569–1586.
57. Noonan, R. J., Boddy, L. M., Fairclough, S. J., & Knowles, Z. R. (2016). Write, draw, show, and tell: a child-centred dual methodology to explore perceptions of out-of-school physical activity. *BMC public health, 16*(1), 326.
58. Ogelman, H. G., Gündoğan, A., Sarıkaya, H. E., & Önder, A. (2016). Anaokuluna devam eden çocuklarda serbest ve hareketli oyun düzenlemelerinin akran ilişkilerine etkisinin incelenmesi. *Fırat Üniversitesi Sosyal Bilimler Dergisi, 26*(2), 163-174.
59. Özdemir, S. (2014). 5-6 Yas grubu çocuklarin serbest zaman etkinliklerindeki oyun ve oyuncak tercihlerinin incelenmesi. *Journal of Educational Science, 2*(2), 1-15.
60. Özdemir, A., & Ramazan, O. (2014). Okul öncesi öğretmenlerinin oyuna ilişkin görüşleri. *Eğitim ve Öğretim Araştırmaları Dergisi, 3*(4), 298-308.
61. Özdenk, Ç. (2007). 6 Yaş grubu ögrencilerinin psikomotor gelisimlerinin sağlanmasında oyunun yeri ve önemi [Unpublished master's thesis]. Fırat Üniversitesi, Elazığ.
62. Özgünlü, M., & Çelik, M. (2018). Okul öncesi eğitimde yapılandırılmamış oyuna ilişkin öğretmen görüşlerinin incelenmesi. *Kastamonu Education Journal, 26*(5), 1691-1700.
63. Özyürek, A., Şahin, F. T., & Gündüz, Z. B. (2018). Nesilden Nesile Kültürel Aktarımda Oyun ve Oyuncakların Rolü. *Çukurova Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 27*(1), 1-12.
64. Parten, M. B. (1932). Social participation among pre-school children. *Journal of Abnormal and Social Psychology, 27,* 243–269. doi:10.1037/h0074524
65. Patton, M. Q. (2014). *Nitel araştırma ve değerlendirme yöntemleri*. (M. Bütün & S. B. Demir, Trans.). Ankara: Pegem.
66. Pellegrini, A. D. (2011). *The Oxford handbook of the development of play*. New York, NY: Oxford University Press.

67. Pellegrini, A.D., & Smith, P. K. (1998). The development of play during childhood: forms and possible functions. *Journal of Child Psychology & Psychiatry Review,3,* 51– 57.
68. Piaget, J. (1962). *Play, dreams and imitation in childhood.* New York: Norton.
69. Pinto, A. I., Pessanha, M., & Aguiar, C. (2013). Effects of home environment and center-based child care quality on children's language, communication, and literacy outcomes. *Early Childhood Research Quarterly, 28,* 94–101. doi:10.1016/j.ecresq.2012.07.001
70. Robson, S. (1993). "Best of all I like Choosing Time" Talking with children about play and work. *Early Child Development and Care, 92*(1), 37-51.
71. Saracho, O. N. (2012). *An integrated play-based curriculum for young children*. New York: Routledge.
72. Santer, J., Griffiths, C., & Goodall, D. (2007). *Free play in early childhood: A literature review*. London: National Children's Bureau.
73. Sapsağlam, Ö. (2018). Okul öncesi dönem çocuklarının değişen oyun tercihleri. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi, 19*(1), 1122-1235.
74. Singer, E., Nederend, M., Penninx, L., Tajik, M., & Boom, J. (2013). Teacher's role in supporting young children's level of play engagement. *Early Child Development and Care, 184*(8), 1233-1249.
75. Smith, P. K., & Hart, C. H. (Eds.). (2004). *The Wiley-Blackwell handbook of childhood social development.* Malden, MA: Wiley.
76. Sormaz, F., & Yüksel, H. (2012). Değişen çocukluk, oyun ve oyuncağın endüstrileşmesi ve tüketim kültürü. *Gaziantep Üniversitesi Sosyal Bilimler Dergisi, 11*(3): 985 -1008.
77. Spinner, L., Cameron, L., & Calogero, R. (2018). Peer toy play as a gateway to children's gender flexibility: The effect of (counter) stereotypic portrayals of peers in children's magazines. *Sex roles, 79*(5-6), 314-328.
78. Sturm, J., Bekker, T., Groenendaal, B., Wesselink, R., & Eggen, B. (2008). Key issues for the successful design of an intelligent interactive playground. *Proceedings of the 7th International Conference on Interaction Design and Children*, Chicago, Illinois, pp.258–265.
79. Sun, M., & Seyrek, H. (1997). *Okulöncesi Eğitimde Oyun*. İzmir: Müzik Eserleri Yayınları.
80. Tarman, B., & Tarman, İ. (2011). Teachers' involvement in children's play and social interaction. *Elemantary Education Online, 1*(10), 325-337.

81. Tas, I. (2018). An Analysis on Play and Playmate Preferences of 48 to 66 Months Old Children in the Context of Gender. *Educational Research and Reviews, 13*(13), 511-517.
82. Taylor, M. E., & Boyer, W. (2020). Play-based learning: Evidence-based research to improve children's learning experiences in the kindergarten classroom. *Early Childhood Education Journal, 48*(2), 127-133.
83. Theobald, M., Danby, S., Einarsdóttir, J., Bourne, J., Jones, D., Ross, S., Knaggs, H., & Carter-Jones, C.(2015). Children's perspectives of play and learning for educational practice. *Education Sciences, 5,* 345-362.
84. Todd, B. K., Fischer, R. A., Di Costa, S., Roestorf, A., Harbour, K., Hardiman, P., & Barry, J. A. (2018). Sex differences in children's toy preferences: A systematic review, meta-regression, and meta-analysis. *Infant and Child Development*, *27*(2), 1-29.
85. Tuğrul, B., Aslan, Ö. M., Ertürk, G., & Altınkaynak, Ş. (2014). Anaokuluna devam eden altı yaşındaki çocuklar ile okul öncesi öğretmenlerinin oyun hakkındaki görüşlerinin incelenmesi. *İnönü Üniversitesi Eğitim Fakültesi Dergisi 15*(1), 97-116.
86. Tuğrul, B., Ertürk, H. G., Altınkaynak, Ö. Ş., & Güneş, G. (2014). Oyunun üç kuşaktaki değişimi. *The Journal of Academic Social Science Studies, 27,* 1-16.
87. Tuğrul, B., Boz, M., Uludağ, G., Aslan, Ö. M., Çelik, S. S., & Çapan, A. S. (2019). Okul öncesi dönemdeki çocukların okuldaki oyun olanaklarının incelenmesi. *Trakya Eğitim Dergisi*, *9*(2), 185-198.
88. Türkmenoğlu, F. (2005). *60–72 Aylık çocukların matematik becerilerini kazanmalarında, oyun yoluyla matematik becerilerini kazandırma programının etkisinin incelenmesi* [Unpublished master's thesis]. Gazi Üniversitesi, Ankara.
89. Ulutaş, A. (2011). Okul öncesi dönemde drama ve oyunun önemi. *Adıyaman Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 4*(6), 233-242.
90. Uygun, N., & Kozikoğlu, İ. (2019). Okul öncesi eğitim kurumlarına devam eden çocukların oyun davranışlarının incelenmesi. *Anadolu Üniversitesi Eğitim Bilimleri Enstitüsü Dergisi, 9*(2), 787-817.
91. Vygotsky, L.S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
92. Waite, S. (2010). Losing our way? The downward path for outdoor learning for children aged 2–11 years. *Journal of Adventure Education & Outdoor Learning, 10*(2), 111–126. doi:10.1080/14729679.2010.531087

93. Weisberg, D. S., Zosh, J. M., Hirsh-Pasek, K., & Golinkoff, R. M. (2013). Talking it up: Play, language development, and the role of adult support. *American Journal of Play, 6*, 39–54.
94. Wesson, M., & Salmon, K. (2001). Drawing and showing: Helping children to report emotionally laden events. *Applied Cognitive Psychology, 15*, 301-320.
95. Wilcox-Herzog, A. & Kontos, S. (1998) The nature of teacher talk in early childhood classrooms and its relationship to children's play with objects and peers. *Journal of Genetic Psychology*, *159*(1), 30–44.
96. Wiseman, N., Rossmann, C., Lee, J., & Harris, N. (2018). "It's like you are in the jungle": Using the draw-and-tell method to explore preschool children's play preferences and factors that shape their active play. *Health Promotion Journal of Australia, 30*, 85-94.
97. Wong, S. M., Wang, Z., & Cheng, D. (2011). A Play-based curriculum: Hong Kong children's perception of play and non-play. *International Journal of Learning*, *17*(10), 165-180.
98. Wortham, C. S. (2006), *Early childhood curriculum, developmental bases for learning and teaching* (4th edition). New Jersey: Pearson/ Merrill/Prentice Hall.
99. Yang, Y. (2013). A qualitative study of teachers' involvement in children's play. Literacy *Information and Computer Education Journal*, *4*(4), 1244-1251
100. Yavuzer, H. (2000). *Eğitim ve gelişim özellikleriyle okul çağı çocuğu* (5. Basım). İstanbul: Remzi Kitabevi.
101. Yıldırım, G., & Akamca, G. Ö. (2017). The effect of outdoor learning activities on the development of preschool children. *South African Journal of Education*, *37*(2), 1-10.
102. Yıldırım, A., Şimşek, H. (2013). *Sosyal bilimlerde nitel araştırma yöntemleri*. Ankara: Seçkin.
103. Zamani, Z. (2016). The woods is a more free space for children to be creative; their imagination kind of sparks out there: Exploring young children's cognitive play opportunities in natural, manufactured and mixed outdoor preschool zones. *Journal of adventure education and outdoor learning*, *16*(2), 172-189.

How do females deal with hindrances in School Headship? Evidences from the Ivorian Context

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Abstract

Leadership, particularly, that of school principals is one of the most important concerns in the field of education. Constantly, studies have shown that women educational leaders effectively lead their schools. Yet, the stories behind how a woman leads a primary school and experiences, challenges and barriers in the principalship have not received adequate exploration in Ivorian context. The purpose of this study is to critically investigate the difficulties and obstacles faced by Ivorian women school principals from the gender equity perspective. Ten (10) women school heads took part in the study. Qualitative method was used to gather data through in-depth semi-structured interviews. The findings show that cultural and structural factors, and work-home role conflicts are the main barriers affecting women and their headship in school management. The study concludes that the women leaders have to deal with these hindrances, to surpass many other constraints and issues that occur within their schools and to keep working. For this to happen women principals needed to be creative. This would also be possible through a necessary transformation of structures along with reformed policies in increasing the recruitment of women for the school headship.

Keywords: Women principals, primary schools, principalship, challenges, Côte d'Ivoire.

Introducing the context and the research problem

Background

Women under-representation in positions of principalship and their challenges are still misrecognised, and seem to be ignored in Ivorian basic education. Although several conventions such as the Millennium Development Goals (MDGs), the Convention against discrimination in Education, the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), the Dakar Framework for Action, Education for All (EFA) have been ratified and adopted (Assié-Lumumba, 2006) and affirmative action policy of females has been hailed as a milestone in their emancipation, there are limited studies as regards women experience in leadership.

Besides, women continue to undergo discriminatory treatment and subordination despite the existing of many international and regional conventions on the legal documents (such as International Conference on the Population and the Development of Cairo in 1994 and the Beijing Conference in 1995) that protect women against harmful treatments and discrimination). Although the Constitution of 2015 clearly declares the empowerment of Ivorian women, the gap in gender parity persists. The country has 22 671 331 inhabitants, from which men represent nearly 11 708 244 (51, 6%) and women 10 963 087 (48, 4%) (INS, 2017). Illiteracy in Côte d'Ivoire is about 43, 8% of which women are 53% (INS / MICS, 2016). More than 35% of Ivorian women in the farm and only 10% are educated (Moreau, 2014).

Moreover, gender stereotypes stemming from the patriarchy confine most women in so-called feminine low-qualified and low-paid jobs and sectors. Most of illiterate women live in rural areas. More specifically, in educational leadership settings the underrepresentation of women is obvious. In May 2017, men were 13837 while women were 1710 or 11% of total 15547 primary school principals (MOE, 2017).This situation of women in Côte d'Ivoire is problematic and bring about issues that need further exploration.

Despite the existence of affirmative action and numerous regional and international conventions ratified by the Ivorian government to promote and achieve gender equity, Ivorian women in educational leadership still experience challenges, including personal, professional and structural obstacles. Beyond challenging situations, women principals strive to manage their schools, keeping in mind that pupils deserved consideration.

In educational settings, leadership has been seen as a key factor in school effectiveness (Mollel & Tshabangu, 2014), while leadership has been and is still associated with masculinity and male stereotypes continue to dominate the perception of leadership (Klenke, 1996). It is currently observed that women running primary education institutions face serious challenges in

their day-to-day actions that mainly stem from patriarchal values and norms, cultural and structural entrenchment in society and schools in particular.

Women in Ivorian basic education and in primary schools particularly appear to be discriminated and undermined (Oyeniran, 2018). Besides, in addition to being low-represented in leadership positions, the few women who assume principalship roles experience a number and complex challenges and hindrances. Some of the major challenges and obstacles discussed in this paper include the social roles and gendered nature of management practices and work-family issues. The research was the opportunity to raise the unheard voices of women school principals and to help eliminate, if not to reduce socio-cultural and structural barriers for the advancement of women in school leadership positions. For looking at the issue critically, the objectives of this study open the scene.

Objectives of the Study

This study seeks to shed light into the lived experiences of women educational leaders and create an awareness of the existing issues in schools. In particular, it intends to assess the challenges that hinder these women leaders in their efforts to perform their principalship and overcome barriers. Besides, this study aims to bridge the gap in research on women in educational leadership positions and gender issues not only within the Ivorian context. It will expectantly contribute to the growing body of knowledge on education and gender awareness in schools, and be useful to those in leadership positions, and those who write policy and leadership development programmes within the basic education and beyond. The importance of this is that it suggests an appeal for a closer attention to a limited field of study.

The summarized objectives of the present study are the following:

- Explore the major challenges encountered by women in school leadership positions
- Uncover the leadership experiences of women principals, looking at their coping strategies to deal with challenges and barriers

Literature review

The socio-historical engagement of women as leaders

Traditionally, African women held a significant function in the society. She worked within the community/society as an agent of economic development and stability. Moreover, she was essential because she played several functions at a time; she was an agent of biological reproduction and political commitment. She was the one who 'create' humanity, and was a force ensuring the survival of the social group.

Likewise, it has been proven that women can play historical and valuable roles in the society. As an example, women have demonstrated their

obstinacy and bravery in the Sudanese and Eritrean wars to the benefit of their communities. In her essay "Memory work as resistance: Eritrean and Sudanese Women in Conflict Zones", Hale (2012) reported a counter-story of the women's heroic roles. She demonstrated how in conflict situations women positioned themselves as agents of resistance in the context of both the Eritrean and Sudanese wars. The scholar discussed ways in which women used their memory to express their own roles in resistance work. The ways in which women insisted on remembering, in very particular ways, their own roles in resistance work. Women warriors were able to use repeated gestures to recall the social injustice they undergone. Hale interpreted women's political memory work. Actually, the individual memory of women contradicted the official memory, which did not consider individual memory. It assumed everyone had a similar experience and had moved on. Yet, that memory work sometimes runs counter to the official story of the state, the party, or even the resistance group, as women were the ones who could narrate accurately the realities of their life stories. Thus, it was worth giving voice to the women who were involved in the conflicts to gain the actual versions of their lives at the times of conflicts.

As the Ivorian people are a deeply agrarian people, women have always been fully involved in agricultural and food production. Sociologically, the Ivorian woman is remarkably a worker in the service of her community. According to Touré Ténin, more than 80% of women are farm workers, and they represent nearly75% of the agricultural workforce in Côte d'Ivoire (Touré, Kouassi, Lagou, Dahoure, & Fofana, 2017). Woman bears the responsibility for the early education of the child in the African community. She is a "*vector*" of alliance between the family and the society in which she lives. Among those African women who played leadership roles in their communities and influenced society greatly, are Yaa Asantwaa of Ghana, the Queen mother of Ejisu in Ashanti and Zhinga Queen of Matamba in Angola, Abla Pokou from Baoule tribe in Côte d'Ivoire (Oyeniran & Bonjah, 2018). In ancient and modern Ivorian societies, great emblematic figures such as Anne Marie, Abla Pokou, Marie Kore and Jeanne d'Arc have marked the history of Côte d'Ivoire as fierce political fighters for the liberation and independence as well as the "*architects"* of the construction of the Ivorian Nation. Even if Ivorian women have been of a great important in the past, today as leaders they experience challenges in many sectors, including education settings. Generally that comes from being considered as subordinate in their communities.

Subordination of Women

Several cultural, political and socio-economic factors explain the inequalities. Very often, the cultural factor is put forward as the main cause of discrimination and inequality suffered by Ivorian women. Indeed, the precarious and informal nature of women's work can be explained by the patriarchal system that conveys a gender division of labor based on two principles: the principle of separation and the principle of hierarchy. The first assigns men primarily to the productive sphere and women to the reproductive sphere. According to the second, a man's work is worth more than a woman's work. As a result, we can better understand why, despite the existence of job opportunities, women are excluded or reduced to precarious or marginal jobs. Worse, in the education of children, it is these same female victims who transmit to their offspring this culture of the gender division of labor and the domination of boys over girls, maintaining the system of discrimination. Up to now that seems not release females from work and domestic duties.

Work-Family Issues

When women are leading organizations, they often strived to work harder to prove their capabilities, especially in the male-dominated workplace. Men are considered to be decision-makers and these patriarchal societies are still uncomfortable seeing women in political decision-making positions. Even though women rise to hold level positions, men may still make decisions.

Traditionally, giving birth and taking care of children remains the big picture of a woman in Ivoirian societies. This perception is mainly informed by persistent cultural and traditional stereotyping towards women who, therefore, are expected to just serve as caregiver and accept decision made by men. Women who move outside these traditional roles are considered non-feminine, wearing pants and not eligible for marriage. The majority of women who are in key positions are either single or divorced (Andela, Escandon, Garlo, & Kamungi, 2008). It is generally, proven that work-family balance remains difficult for women. For them, it is important to pursue an ideal of life, not to compromise on values and on the family concerns. However, that may request from them to have the courage of their beliefs and ideas, to take care and make sure they are stable and leave room for their passion, enthusiasm and desire.

It seems that the pressure and burdens may lead many women feel reluctant to take up jobs, which would separate them from their families. However, once engaged in the principalship women primary school principals might deal with a number of challenging experiences during their professional career. How to balance between family attachment and family roles and work needs remain one of the major challenges for women.

In education and more specifically in the context of primary schools, the needs of students and parents are more expressed and complex. Managing individual cases of students, having meetings with the educational community and attending meetings outside the school with the superintendents (Inspectors, School Counsellors, Chief Administrative Officers, and Chief Executive Officer) consume time and energy. Especially, it may be challenging for a woman principal who must also fulfil her family needs and duties, especially when she has to look after children at young age. The conflict between work and family responsibilities can be hard to women who have to accomplish double roles as homemaker and principal (Coronel, Morena& Carrasco, 2010).

The issue of balancing personal life, children and work requirements are seen as the most common barrier that women face, that is why some researchers (Kellerman & Rhode, 2007) have found that women, most time, drop leadership roles and focus mainly on their family concerns, which in turn disturb their professional career. In Côte d'Ivoire, women are considered the "mother of all"; that is to say not only responsible for their family, extended family, but often also for neighbours and community members (Andela et al., 2008). Women are generally confronted with the challenge/dilemma of having to balance a multiple roles: administrative, teaching and home roles. They are expected, primarily, to be responsible for the family and managing the home. Society expects from women to be responsible for the family and home business. Early in life women are expected to take on the responsibilities of caring and supporting their families (for example, taking care of their parents or assisting in earning money to pay for a brother's school fees). These responsibilities can be quite heavy, hard and often deny women important experience and access to strategic information. Regarding stereotypes, it can be argued that, in Côte d'Ivoire all those social roles and stereotypes towards women, including women principals, influence their headship and lead them to struggling in leadership positions. To reach evidences of this, a theoretical lens leads the study.

Theoretical perspective

The framework that guides this paper is feminist theory (Gilligan, 1982; Harding, 1987). This perspective is deemed suitable and interpretive to help for critically understanding experiences, working conditions and challenges from women's voices and leadership styles adopted by women principals. Besides, it brings to the surface voices that are often excluded from knowledge production and policy making, and critically reflect upon how it can all be done better (Frisby, Maguire & Reid, 2009).Hesse-Biber (2012) suggests that feminist approach stresses the importance of giving voice to women pointing out their marginalized position in terms of gender; and

recognizing women's life stories as knowledge from the schools context. In fact, feminist research is seen as being concerned with issues of broader social change and social justice and committed to changing the condition of women (Acker, Barry & Esseveld, 1983; Fonow & Cook, 2005). This study therefore, look at the challenges faced by women principals as shared issues frequently experienced in the principalship.

Thus in this study, the feminist approach includes all arguments criticizing the inequalities against women principals in order to improve their professional conditions. Besides, feminist theory considers gender as a social, historical, and cultural construct (Gilligan, 1982; Harding, 1987; Butler, 1999; Connell, 1995; Reinharz, 1992; Reinharz, 2006). In light of this, the use of feminist theory in this study offers insight into the social construction of gender and perception of women principals' capabilities in leadership positions. Furthermore, women leaders express their own experiences and share their perceptions about their leadership styles, which may critically serve feminist theories and research. The concern of feminism and feminist research is to construct knowledge that "writes women into history and exploring, challenging, resisting and changing sexual and social inequalities" (O'Neill, 1996, p. 131).

Feminist research is concerned with studying the issues facing women at its starting point, and it seeks to search and explore the social dynamics and relationships in patriarchal society from women's perspective (Hussain, & Asad, 2012, p. 206). As such, feminist research considers women's viewpoint, experiences, needs and thoughts as the base of the research with the aim of bringing social changes and eliminating gender bias in the society. Through this perspective the researchers sought to promote equality in the research process through the accounts of women's experiences that may contribute to enact social change and transformation in the context of schools in mainland of Côte d'Ivoire. The next lines present a suitable methodology to explore the lived leadership experiences of these female primary school principals through a phenomenological approach.

Methodology

This study used qualitative research design to examine the challenges through the leadership experiences of women principals and to develop a deeper understanding of principalship and how they experience it (Creswell, 2013). Basically, this study used qualitative approach as it aimed to capture the first-hand accounts of the women lived leadership experience and perceptions (Creswell, 2013). This has the advantage of stressing the rich contextual detail and women leaders' experiences to gain holistic and meaningful information about the opinions, emotions, attitudes, nature of

relationships of school boards and the actual professional context of the participants.

Ten (10) women school heads was identified using sampling technique. The women selected were from ten (10) elementary schools located in Abidjan, in the South of Mainland Côte d'Ivoire, which is the economic Capital city (Abidjan). Two out of these ten women principals were selected using purposeful convenience strategy, and the rest were found by snowball sampling technique (Creswell, 2013). As this study is a case study, it concerns women principals performing in the real life that could be observed/studied to learn about their lived experiences (Yin, 2014). The case study allowed the researchers to explore all three domains of the interviewees (women principals), which are cognitive, behavioural and affective (Leedy, 1980). Qualitative data was collected through in-depth semi-structural interviews, direct observation and secondary data (existing literature & official documents). The women principals were given the opportunity to tell their stories in a narrative way. In addition to semi-structured interview, the researchers utilized direct observation to take note from the fieldwork. A voice recorder was used and participants were identified with pseudonyms.

A phenomenological approach helps to gain access to women's lived experiences, to capture the first-hand accounts of their perceptions of leadership as principals, from their own perspective (Creswell, 2013). As this study is a case study, it concerns women principals performing in the real life that could be observed/studied to learn about their lived experiences (Yin, 2014). The study employed phenomenology approach because it aims at emphasizing the importance of individual experiences of the participants as conscious human beings (Moustakas, 1994) to identify the differences if any. In addition, the study intended to investigate women lived experiences to describe the common meaning of experiences and perceptions for all the respondents of which a central meaning of these accounts may come out.

The phenomenological approach thus allowed reconstructing the experience of the women principals while yielding validity to their narrative. Phenomenology remained as most as possible faithful to the data, while the researchers used thorough words through a few verbatim accounts. The N'Vivo data processing software (Pfaffenberger, 1998; Richards, 2006 as cited by Gaudreau, 2011; Van der Maren, 1996) helped to analyze the data. In this light, the verbatim accounts were digitized and stored. From there, the findings were deeply analysed.

Research findings

Eight selected women principals took part in the interviews and provided some information of their biography that are placed in the table below.

Table 1. *A brief summary of female principals' information*

Pseudonym	Age	Marital status	Number of children
Bella	40	Single	1
Dany	41	Married	1
Fiath	39	Single	0
Gely	43	Married	2
Paty	45	Divorced	3
Thia	40	Married	1
Sali	42	Married	2
Suna	47	Married	3

Source: Fieldwork data

Through narrative women principals described their experiences including structural and cultural entrenchments in society as well as in schools. The daily activities are busy with a range of tasks. Principalship involves many responsibilities; the more women become immersed themselves in their role, the more tasks and issues they end up taking on. The women participants narrated their experiences in different ways.

No time to save

The first principal Suna started her story full of challenges. She shared what she experienced as troubles in her principalship. Suna confessed that the role of the principal is to manage everything; as principal "you are responsible for handling and updating teachers and students' files, teaching, attending meetings at the school inspectorate and doing daily routine". She further expressed this:

My work is tiring, stressful, especially for a woman like me who lives far away from my workplace, transportation issues as you know here in Abidjan city are very complicated and stressful and too expensive (...) the distance from my home to my school takes me long, about one hour. Principals like me do not have the opportunity as some others colleagues who are housed within the school. While I am requested to be on time every day... at times traffic jam makes me delayed; and as result, my pupils lose time of learning.

Women principals in this study felt that despite their willingness and sincere devotion, they could only just manage to squeeze administrative tasks into teaching loads and breaks. Sali, and Paty also revealed that they have been

attending several meetings in a month at the inspectorate that takes too much time from their schedule. Almost all women leaders who took part in this study agreed that being absent from school to attend meetings at the school inspectorate, outside the school with NGOs, at the town hall or for networking with other stakeholders to solicit donations or financial support for their school, did not relieve them of their heavy jobs.

However, the delay in getting the school on time means a waste of time in the amount of their teaching time and the discontinuity of the syllabus content. That situation leads them to fix or complete the lessons overtimes, which at times coincide with other programs or unsuitable time. Suna**,** honestly, acknowledged that she cheated a bit at times in catching up with the schedule. She stated,

When I missed class I don't need any preparation sheet to teach, as I teach grade 1 whose syllabus remains the same each year, which is not too hard to be covered by the end of the year.

Avoiding time away from school and preserving the full time of teaching was the eager desire of all the women interviewed. Sali realized how the combination of principalship duties and teaching responsibilities brought about troubles in her work, as it upset the syllabus and the ongoing teaching every year, and at times weakens her full potential as woman leader. That's why women principals in this study wished the principalship was detached from teaching load, so that the school head will only focus on the whole school management, including administrative affairs, teaching supervision and pupils concerns, which would benefit them in their learning and performance.

When the marriage is threatened

Balancing work responsibilities and family duties bring about work-family roles conflict as expressed most women principals in this study.The case of Gely who made an ultimate decision of living alone with her children is an eloquent example of a woman who resign herself to staying single. Actually, after losing her husband, she now strives to live up with her current status of an unmarried mother to avoid constraints and struggles of a married woman. She said, I have decided not to contract a new marriage because I was afraid of not being able to integrate family obligations with work responsibilities…You know, it is hard to balance work and home duties, so I did not want to put myself under pressure because of heavy duties.

In addition to her children, Gely had to take care of her husband after work. She felt being single mother didn’t release her from her family responsibilities and household chores, as she henceforth lived alone and had to feed her kids, bring them up and schooled them.

Although these duties were still there, she got free from subordination and submission from her husband who gave her a sort of agent. Hence, having

no husband was empowering, even if Gely had to fend for her family; the avoidance of the marriage again was for her an advantage. Engaging in a new relation would have submitted her to heavy load once she is in a marriage. That's why she preferred being single.

Unlike Gely and Thia do not perceive too much trouble to handle both of these responsibilities. Although, these women acknowledge the difficulty of managing, administrative responsibilities and family businesses they affirmed that they were able to balance both loads. Thia said:

It is a matter of how you organize, how you set your schedule, your planning every day, including the unplanned tasks (…) If you are well organized your family would not be affected by the work requirements. I do my best to organize my timetable, planning and other issues.

The above perception is not common to all women participants, regarding their different experiences as heads of schools. However, the rich accounts collected allow the researchers to discuss and interpret the meanings of the participants.

Discussion

From all that was described by the women principals, what emerged was that working conditions, complexity of tasks and challenges was seen as a resource of difficulties that women experienced. These suggest that leadership is a challenging process that requires coping strategies.

Socio-cultural and institutional realities

Indeed, evidence from the interviews showed that cultural perception on women principals affected their headship. Mostly in Ivorian contexts, women are expected to listen to men, neither to talk nor to make a decision on gatherings where men outnumbered women. Women are generally assigned the tasks of communication, assistance or secretariat to take note of and report on the meetings.

In fact, it is an instinctive habit that men have towards women, who themselves often appreciate such roles since they do not complain anyway. Yet the nature of the role assigned to women in decision-making instances hides men's control over meetings and the subsequent decisions. The reason of those men's attitudes can be found in cultural traditions, which still assign woman to be a follower of the man. Ivorian society still believes in gender taboo that does not accept a woman as leader. Society regards women as persons whose role is to be in charge of household chores and take care of children. Leila felt "leadership is still considered the preserve of men. There are people who still think only men can be good leaders".

This tags along with the thought that a man is supposed to be competent, to do his job well, which generally makes sense for people in

Ivorian context. As for a woman, people will expect from her to prove herself. However, it is not obvious as such from the outset. When a woman is wrong, the stereotypical sarcasm flows. A man might be criticized, but not the same way. In fact, women are viewed differently in Ivorian societies. In the societal expectations, working in administration positions belongs to a man, yet that way of thinking yield affected negatively on women principals. This finding is in agreement with Coleman (2002) who reported that "the main gender-related problem for the women heads was the resentment felt by men and some women about women in a leadership role, the underlying belief that leadership is inappropriate for women"(p. 87). In Côte d'Ivoire, cultural beliefs and practices have obstructed women empowerment due to the fact that people generally are socialized into accepting the norms, values and customs of social systems in which they grow up, and schools have likely played a major part in that process of socialization.

Actually, in Ivorian societies, gender socialization begins earlier, from birth and perpetuates until maturity for both girls and boys. In addition to cultural heritage, education from the childhood is also seen as an explanatory factor of people's attitude towards women, especially when interacting with men. From childhood, the little boy is socialized with the idea that he has to behave differently. He is told a boy does not cry, a boy is strong, a boy has not to be an emotional person, he has not to be weak. Thus, the little boy grows up with the idea that he must always be strong and should refuse to be influenced; and even when he encounters painful situations, he is forced to restrain himself.

However, one does not tell the little girl not to cry, people do not mind her and one does not tell her to control her emotions in difficult situations. It can be therefore asserted that in the communities, traditional beliefs and practices constitute the dominant hindrance to the promotion of women into administration positions.

Patriarchal leadership structures

Women principals experienced cases of confrontation and insubordination coming from the fact that males kept undermining women authority. Leila expressed, ‘’I have experienced resistance from a male teacher who expected me to fail in my administrative role’’. This finding is consistent with that of Mapolisa, Chibvonga and Madziyire (2013) who found that social and cultural factors intervene to form a barrier to Zimbabwean women's advancement, which is one of the reasons that tend to show that women leaders are not as successful as male leaders. This is the evidence that structural perceptions are heavily embodied in male minds, as teachers displayed disrespectful behaviours towards women principals. Gely revealed that a teacher from a patriarchal tribe challenged her for about three months before

he left the school the previous year. Gely clarified, "I heard that teacher confessed to the other teachers that in his tribe women cannot order male to do something".

In Côte d'Ivoire, male outnumber women in the teaching profession and the principalship of primary school. For a woman, involving into space of male-dominated professions is perceived as a quite difficult mission because the culture is still strongly patriarchal. It seemed the matter lies in the cultural beliefs of organizations. Burke (2015) raised the ambiguity of the situation of women in the academic field. Burke noted that women might outnumber men at university, though numbers alone will not change gender inequality. It can be argued that cultural prejudice, stereotypes, moral and psychological oppression remain the greatest perceptions of the Ivorian communities, and they are particularly expressed in men's attitudes. For example, men happened to devise evil or do not easily accept to be run by a woman in school. In the mind of men, leadership is made for men, not for women. Generally, women capabilities are undermined at many workplaces, as revealed a study by the Global Observatory of Inequalities, at the global level, women earn on average 25% less than men (Moreau, 2014). Actually, in Côte d'Ivoire, the average income of Ivorian women is lower than that of men. This is the actual situation in most private sectors. In the public sector, the discrimination towards women and the denial of women skills are reflected in the slow or lack of promotion of women to decision-making positions.

However, these kinds of treatments and attitudes towards women are not openly displayed. As said Msila (2013: 464) "the man is always perceived superior by society irrespective of circumstances". Cultural thoughts strengthen the misogyny of men towards women. This tends to assign systematically leadership according gender lines. That is why Trinidad and Normore (2004) underlined the importance of transcending the cultural norms to avoid a dangerous liaison that may come up between leadership and gender. These biases due to gender stereotypes persist today, especially in rural areas. The attitudes and values associated with gender and leadership shape the beliefs and expectations of workplaces towards their members and stigmatize professional identity. All this constitute therefore women's troubles including how to balance domestic obligations and profession duties.

Balancing family duties and work responsibilities: Women's troubles

From the findings, it was evident that balancing work and home duties was certainly the prime and major concern of women principals in their position. Based on the findings, the combination of work responsibilities and family obligations is quite challenging for many Ivorian women principals interviewed in this research. Sali revealed, "*At times, I got confused with many unexpected tasks, as a result I felt I underperformed*".

That revealed the inconsistency of principals' tasks and could be seen as a cognitive dissonance, which is in agreement with what Wolcott (2003) found, speaking of principals:

There is always something they should or could do that they are not doing, and there is always something they could do more or better. But when you box in a large group of learners of any age for a predetermined number of hours each day and week, there is only a certain amount you can expect to accomplish" (p. x).

Women principals in this study provided insights into the concern that express the actual experiences as mothers/wives and as leaders. Grzywacz and Carlson (2007) defined work-family balance as the "accomplishment of role-related expectations that are negotiated and share between an individual and his or her role-related partners in the work and family domains" (p. 458). Women in this study are torn between family and professional life. They are thus confronted with the issues of availability and mobility. Knowles, Nieuwenhuis and Smit (2009) in their study revealed that it was hard for women mother-educators to juggle their multiple roles of mother, wife and teacher.

How to organize or manage themselves to meet the responsibilities of mothers and wives at once, while responding to work, satisfying the prerogatives of chief. To whom leave the household in case of absence? These are some of the daily trouble and concerns of women workers, and even more so women bosses. Women leaders in the current study indicated that, unlike men principals, they are committed to handle multiple roles (teaching a class, leading the school and managing the house) while their male colleagues tend to have more time to relax, make less of an effort, and are less stressed than women (Asimaki, Zenzefilis & Koustourakis, 2016). Actually, women were confronted by constraints, as they seek to balance home life with office demands (Brown, 2004).

From the experiences of most women in this study, it can be argued that caring of children at home, fulfilling their duties as mothers and as spouse, which is still largely attributed to women, remain a persistent challenge for women in the leadership positions. How to achieve a better balance between work and private life without affecting her overall life was thus one of the hardest experiences of women principals in this study. The issue of balancing personal life, children and work requirements is seen as the most common barrier that women face in headship. Women principals felt constrained by a triple role: at home as a mother, at the workplace as a teacher, and as principal at once. Fiath confessed, "*family duties weighed on us down and became hindrances in our attempts to move up*". Kellerman and Rhode (2007) concurred with that, as they have found that women much time drop leadership roles and focus mainly on their family, which in turn disturb their professional

career. In the context of Côte d'Ivoire, people expect from women first and foremost to be responsible for the family affairs and managing the home. These social roles attributed to women influence them and bring about pressure and stress in their principalship. The following figure shows clearly the cliché of that reality.

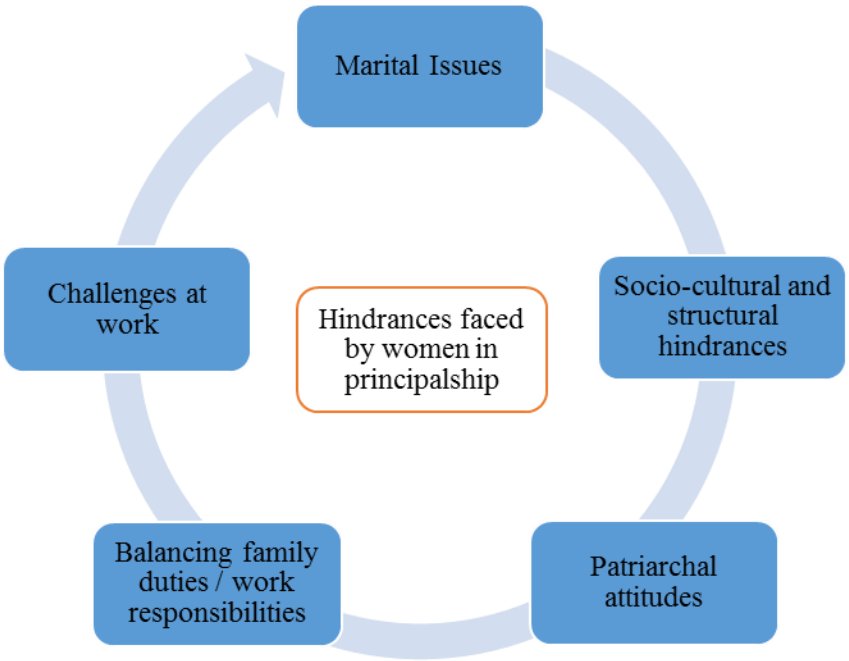

Figure 1: Cliché of Women's hindrances in principalship
Source: Research field data

Overcoming the hurdles: Use of coping strategies

How women leaders in this study were able to overcome barriers they face is one of the intents formulated to identify the strategies that women principals in this study utilized to surpass obstacles through the pathways. In particular, how women school heads succeed despite barriers and other issues they faced in school leadership positions? It important to note these principals experienced various forms of barriers through their personal and professional life as they related in this study. However, as great and painful as these obstacles appear, they are surmountable. When asked women how women they overcome the barriers they encounter, most mentioned that they have their own ways of dealing with challenges depending on the situations. Bella asserted, "I am naturally patient and a great observer, so when I face situations I just take time and observe what would come out of the situation''. As the

eldest of her siblings, Bella learned how to handle difficult personalities as her parents have played a great and significant role in her approach in dealing with complex situations, especially when tensions or conflicts arose between her little brothers and sisters. She felt that shaped very much her ability of leading people.

Generally, strategies to overcome them include training, experiences and emotional strengths that these women principals used subtly. Furthermore, it can be noticed that they relied on their readiness, communication and sometimes on support from their relatives to overcome the hindrances that they encountered on their pathways. However, special accents are to be put on tips that can reconcile domestic life and professional life, on bypassing prejudices and enhancing self-confidence.

Findings reveal that women principals dealt with issues differently, yet, all together, they thought of themselves as persons who emphasized communication in their relationship with people. Besides, they are very much more proactive and innovative in managing school concerns, as they encouraged parental involvement in the schools and enabled stakeholders and citizens to have a say in the education of their children. Actually, women tried to perform their leadership roles and administrative duties despite stereotypes and undesirable attitudes, especially from men.

To deal with a number of issues and overcome the obstacles, women principals unanimously recognized that they strove to approach them with their own ways. Dany asserted, “if we want to progress, we need to initiate changes which bring concrete results”. Fiath further added, “we should not be afraid to think and lead differently”. Women leaders believe that they need to train themselves on "*deep listening*" and remain themselves as much as possible so that they can really understand what's going on and have control over everything. Besides, women principals have to manage the social, structural and instructional matters within their schools that require them to put much attention on every details and deal with the most complex situations such as the schoolchildren’s learning difficulties or difficult teachers, which in turn shape their experiences and competencies.

This is in line with what Ghaus-Kelley (2014) revealed in her study. She found that despite the difficulties of their positions, women CEOs’ leadership practice strengthened their beliefs, commitments, and leadership abilities. He also noted that these women leaders viewed leadership as an all-encompassing lifestyle, a worthy and righteous cause, and perceived their lifetime commitment as a higher calling

There is no doubt about their ability to run their schools. However, the styles of their leadership were influenced by the actual situation depending on the nature of the problems they faced and the goal they targeted. Bella saw herself as more democratic than autocratic while Dany said,

I used to be myself when I am working …I keep in my mind I am working with people like me…so I just remain natural as possible and I try to focus on the tasks. When I was vice-principal I worked under a male principal for five years. I used to talk with some of my male colleagues when we meet. From our meetings and discussions, I experienced how men usually perform in leadership positions. I do not think men and women lead in the same way in the primary schools. Also, I think women have something different which is part of their nature.

This perception is in the same line with what some authors (Rigg & Sparrow, 1994; Brinia, 2012) have demonstrated. In fact, theses scholars showed that leadership characteristics of primary school principals are described as emotionality, sensitivity, expressiveness, cooperation, intuition, tactfulness and receptiveness to ideas. Other studies have attested that women usually became teachers because they like working with children.

Conclusion

In summary, it is clear that a cross section of factors affect women principals in their leadership role. Actually, women principals experienced challenges that embraced cultural and structural entrenchments, and work-home conflicts, which constitute the main barriers affecting women and their headship in school management positions. Female principals face many hindrances that related to gender role stereotypes and discrimination. This is because, mostly as per the expectations of the society, women are perceived and deemed to hold the subordinate place/position while male holding the leading role. Yet, in Ivorian context it's used to say "*derrière un grand homme se trouve une grande dame*", meaning behind a great man is always a great lady, and more specifically meaning that the woman is the true support of the man.

Those findings are quite significant and heuristic due to their implications for policy-making on gender and women in educational leadership roles. Thus the study mapped out the hard experiences and difficulties of women principals to create an awareness of the importance of women's experiences in their leadership roles, in particular their personal and professional life. From findings based on the women principals' narrative stories, it was clear that women principals had to cope with a number of challenges and prejudices that persisted in their principalship. Despite a number of hurdles, these Ivorian women principals performed as they can.

References:

1. Assie-Lumumba, N.T. (1996). *Les Africaines dans la politique: Femmes Baoulé de Côte d'Ivoire*. Paris: L'Harmattan.
2. Asimaki, A., Zenzefilis, V. & Koustourakis, G. (2016). The Access and Development of Female Academics in the University Field in Greece: University of Patras Case Study. *Open Journal of Social Sciences, 4*, 150-162. http://dx.doi.org/10.4236/jss.2016.43021
3. Brinia, V. (2012). Men vs. Women; educational leadership in primary schools Greece: an empirical study. *International Journal of Educational Management, 26* (2), 175-191.
4. https://doi.org/10.1108/09513541211201988
5. Brown, H. E. L. (2004). *Barriers to women in educational leadership roles in Montana.*Doctoral Dissertation. Bozeman, Montana: Montana State University-Bozeman.
6. Coleman, M. (2002). *Women as headteachers: Striking the balance*. Stoke on Trent: Trentham Books.
7. Coronel, M. J., Moreno, E., & Carrasco, M. J. (2010). Work–family Conflicts and the Organizational Work Culture as Barriers to Women. Educational Managers. *Gender, work & Organization, 17*(2), 219-239
8. https://doi.org/10.1111/j.1468-0432.2009.00463.x
9. Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches*. (3rd ed). Thousand Oaks: Sage.
10. Davies, L. (1998). Democratic practice, gender and school management. In P. Drake & P. Owen (Eds.), *Gender and management issues in education: An international perspective.*Stoke on Trent: Trentham Books.
11. Hussain, B., & Asad, A. Z. (2012). A Critique on Feminist Research Methodology. *Journal of Politics and Law, 5*(4). http://dx.doi.org/10.5539/jpl.v5n4p202
12. Frisby, W., Maguire, P., & Reid, C. (2009). The `f' word has everything to do with it. How feminist theories inform action research. *Action Research, 7*(1), 13-29.
13. Klenke, K. (1996). *Women and leadership: A contextual perspective*. New York: Springer.
14. Gaus, N. (2011). Women and school leadership: Factors deterring female teachers from holding principals positions at elementary schools in Makassar. *Advancing women in leadership, 31*, 175-188.
15. Ghaus-Kelley, H. (2014). *Exploring the critical learning moments of women community college executives: A phenomenological study of*

transformative educational leadership practices. (Doctoral Thesis). California State University, Northridge.

16. Gilligan, C. (1982). *In a Different Voice: Psychological theory and Women's*

17. *Development*. Cambridge: Harvard University Press.
18. Grzywacz, J. G., & Carlson, D. S. (2007). Conceptualizing work-family balance: Implications for practice and research [Special edition]. *Advances in Developing Human Resources, 9*, 455-471. http://dx.doi.org/10.1177/1523422307305487
19. Hale, S. (2012). Memory work as resistance: Eritrean and Sudanese women in conflicto zones. *Dissent: The Politics and Poetics of Women's Resistance. Special Issue of Comparative Studies of South Asia, Africa and the Middle East, Shahrzad Mojab, 32*(2), 429-436. http://dx. doi: 10.1215/1089201x-1629025
20. Harel-Giasson, F., & Marchis-Mouren, M. (1991). *Les femmes interpellent l'Université*. Montréal: Écoles des Hautes Études Commerciales.
21. Hesse-Biber, S. N. (2012). Feminist research: Exploring, interrogating, and transforming the interconnections of epistemology, methodology, and method. In S. Hesse-Biber (Ed.). *Handbook of feminist research: Theory and praxis*. (2nd ed.). pp. 2-27). Thousand Oaks, CA: SAGE Publications. http://dx.doi.org/10.4135/9781483384740.n1
22. Kellerman, B., & Rhode, D. L. (Editors). (2007). *Women and Leadership: The State of Play and Strategies for Change*. Foreword by Sandra Day O'Connor (Ret.). Jossey-Bass.
23. MoE. (2017). Ministère de l'Éducation National. Données Statistiques de la Direction des Stratégies de la Planification et des Statistiques (DSPS). Availavble at http://www.men-dpes.org/new/index.php
24. Mollel, N., & Tshabanbu, I. (2014). Women in Educational Leadership: Conceptualizing Gender Perceptions in Tanzanian Schools. *Educational Research International, 3*(4), 46-54.
25. Moreau, C. (2014). *Rapport de la Côte d'Ivoire sur la mise en œuvre du programme d'action de Beijing vingt ans après. Ministère de la Solidarité, de la Famille, de la Femme et de l'Enfant. République de Côte d'Ivoire*. Retrieved from https://www.uneca.org/sites/default/files/uploaded-documents/Beijing20/NationalReviews/cote_divoire_beijing_review_report_0.pdf
26. Msila, V. (2013). Obstacles and Opportunities in Women School Leadership. *International Journal of Educational Sciences*. Retrieved July, 31 2017 from

https://www.academia.edu/4888503/Obstacles_and_Opportunities_in_Women_School_Leadership_A_Literature_Study
27. Oyeniran, R., & Bonjah, A. I. (2018). Women's leadership experiences: A study of Ivorian Women Primary School principals. *Journal of Educational Issues, 4*(1),148-173 https://doi.org/10.5296/jei.v4i1.13042
28. Oyeniran, R. (2018). Women Educational Leaders in Principalship: Exploring the Lived Experiences of Women Heading Primary Schools in Côte d'Ivoire. *International Journal of Contemporary Education, 1*(1), 36-51. https://doi.org/10.11114/ijce.v1i1.3209
29. Reinharz, S. (1992). *Feminist Methods in Social Research*. New York: Oxford Press.
30. Rigg, C., & Sparrow, J. (1994). ''Gender, diversity and working styles'', *Women in Management Review, 9*(1), 9-1. https://doi.org/10.1108/09649429410050971
31. Touré, T. D., Kouassi, K. S., Lagou, H., Dahoure, A. D., & Fofana, L. (2017, March 21). La pace de la femme dans nos société ou alors la représentativité de la femme dans les sphères politiques et de décision. [Television broadcast]. In Radio Television Ivoirienne (RTI) (Producer), *Le Grand Débat.* Côte d'Ivoire, Abidjan : RTI1.
32. Trinidad, C., & Normore, A. H. (2005). Leadership and gender: a dangerous liaison? *Leadership & Organization Development Journal, 26*(7), 574-590. http://dx.doi.org/ 10.1108/01437730510624601
33. Wolcott, H. F. (2003). *The man in the principal's office. An Ethnography*. Updated Edition. Altamira Press.
34. Yin, R. K. (2014). *Case Study Research. Design and Methods*. (5th Ed.). SAGE Publications, Inc.

The Key Extrinsic Motivational Factors to Boost Undergraduate Students' Academic Performance and Achievement at a Private Higher Education Institution in Southern Lebanon

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Abstract

This study was designed to investigate the major extrinsic motivational factors affecting the academic performance and achievement of <blinded for peer review> undergraduate students in Saida Campus. Emphasis was to establish the effect of undergraduate academic under- preparedness, the match between undergraduate learning style and instructors' teaching style, and instructors' teaching methods and personal qualities, and classroom management techniques on undergraduate motivation and consequently on their academic performance. The validity and reliability of research instruments were established through SAS (Student assessment Survey). Data was collected from 300 respondents selected from all the faculties at <blinded for peer review> using the simple random sampling method. To analyze the data, the Chi-square was used and findings revealed the existence of a significant relationship between the various hypothesized variables and students' motivation and academic performance and achievement. It was found that classes at <blinded for peer review> consist of diverse students who favor the kinesthetic, read/write, and visual modes of learning and prefer the conceptualization and association learning strategies in dealing with their college curriculum. Another interesting result is that most students are highly motivated by instructors who are primarily supportive and respectful towards students and use both multimedia tools and a variety of activities in their classrooms. These results can facilitate the procedure of filling in the gap between the instructors' teaching styles and the students' preferable learning strategies and modes of learning. So, educational staff and stakeholders are responsible to manufacture more motivational strategies which can spur students' intrinsic or extrinsic motivation.

Keywords: Undergraduate academic performance and achievement; extrinsic motivational factors.

Introduction

During college life, a critical developmental period for both late adolescent and young adults, many college students have been shown to possess a unique set of stressors which can affect their daily experiences (Garret, 2001). Indeed experiences of uncertainty during first year, poor motivation, perception of unpreparedness and misplaced expectations have all been found to be associated with student attrition in higher education (Bennett, 2003). That is why several researchers such as Tucker, Zayco, & Herman (2002) have suggested that motivation which refers to "cognitive, emotional, and behavioral indicators of student investment in and attachment to education" directly affects academic achievement; all other factors affect achievement only through their effect on motivation. So, unless learners are adequately motivated, they will not perform effectively, nor will they find learning rewarding or satisfying (Mouton & Blake, 1984). But, unfortunately and realistically, motivating students yesterday, today, and tomorrow will never be a singular or simplistic process (Sheidecker and Freeman, p. 117) since, as Ford (1992) states, there are many factors that interfere with motivation and there are no magic motivational buttons which can be pushed to make people want to learn, work hard, and act in a responsible manner. Ford (1992) adds that motivational interventions which do not respect the goals, emotions, and personal agency beliefs a person brings to a situation, may produce short- term effects, but in the long run they are likely to fail or backfire. Therefore, it is hoped that the present study investigates how, in the current environment of financial, environmental, and political strain, college life can be less stressful for many Lebanese undergraduate students by presenting a concrete description and analysis for the problem of motivation, by discussing the correlation between motivation and academic performance, and by suggesting new ways and strategies to increase the motivation of undergraduate students at <blinded for peer review>.

Statement of the Problem

Most Lebanese college students especially those in Southern Lebanon face many challenges due to the discouraging messages they receive daily from their environment which is under continuous political, environmental, and financial strain. But other than the negative effect of the economic plight and political instability on the Lebanese undergraduate academic performance, these students are mainly shocked by the fact that they are academically underprepared to meet the challenges and rigors of the college

curriculum. This is one of the main sufferings of the students and instructors at <blinded for peer review> in Saida Campus. Many college students feel that their secondary education has provided them with a good foundation for their learning activities in university. On the other hand, many instructors at <blinded for peer review> in Saida Campus expect their heterogeneous students to be committed to thinking through problems and working through challenges to master a concept or gain a new skill. But this goes beyond student enjoyment of an activity, as students must persist through obstacles. Instructors always report that many students face many obstacles concerning their English proficiency, presentation skills, research skills, and study skills. Here appears the role of instructors, parents, administration, and the educational staff in motivating such students, who if not motivated, may be depressed to an extent that they may drop out of the college and lose their education. Such a result may affect negatively on the quality of human resources within the society. These problems of high dropout rates and slow progression, together with greater diversity in the student population, highlight the inherent need to develop a better understanding of the factors which contribute to students' motivation and to their success in higher education at <blinded for peer review>. So motivating these undergraduate students is considered to be one of the most significant factors that determine success or failure in college or in any other undertaking; however, motivating college students is often a complex and difficult task. It stumps even the most experienced teachers at times.

Review of Literature

The concept of motivation is considered as a pivotal factor that affects human behavior and performance (Turan, 2015). Many educational researchers and practitioners such as Alkış (2015) assert that motivation is one of the most important factors in student achievement and in ensuring continuous achievement. In the literature, there are different definitions of motivation, a word derived from the word "movere" which means moving in Latin (Seiler et al. 2012).Motivation can be defined as what makes people tick and a driving force within individuals by which they attempt to achieve some goal in order to achieve a need or expectation (Murphy, 2006, p.1132). Tracy (2000) defined motivation as "all those inner striving conditions, described as wishes, desires, and urges to stimulate the interest of a person in an activity. It is therefore an inner state that stimulates and triggers behavior". Similarly, Khansir et al. (2016) asserts that motivation pushes man emotionally to achieve goals and ambitions and it is with the mixture of one's effort and aspiration and sometimes positive attitude that a learner can acquire his learning; however, according to Baumeister and Vohs (2007), it is a state where the individual displays various attitudes voluntarily in order to achieve

a certain goal. Küçüközkan (2015) defined motivation as the sum of the efforts made for mobilizing the individual towards one or more particular goals and for ensuring the continuity of this movement, whereas according to Waterman (2005) it is a force representing the internal factors initiating the movements that should be performed to fulfill a need and the external factors that encourage this behavior. The findings of many recent research studies indicate that the motivation which students bring to the class is the major factor which affect their success; however, Hadfield & Dörnyei (2013) state that keeping students motivated is one of the most perplexing challenges for language teachers who often meet unmotivated learners who are obliged to take a class due to various uncontrollable factors and thus their learning process might produce a slower or less enjoyable learning process. High motivation in students is also linked to reduced dropout rates and increased levels of student success (Newmann & Bryk, 2001). So, student motivation is an essential element that is necessary for quality education; therefore, teachers, who usually play a main role in this process, should be aware of the best techniques that can be adopted to motivate their students to show better output in their classes. But how do instructors know when students are motivated? They pay attention, they begin working on tasks immediately, they ask questions and volunteer answers, and they appear to be happy and eager (Palmer, 2007). A lack of motivation to learn could be at the root of any educational problem.

There are many types of motivation, but most educators and researchers, such as Lumsden (1994), focus on two main types of motivation: intrinsic motivation and extrinsic motivation. In extrinsic motivation it was "the goal" (i.e., high grades) not the "doing" that explained performance, whereas it was the actual "doing" that explained the primary reason for intrinsic motivation (Spaulding, 1992). Deci and Ryan (2002) examined three categories of motivation that affect achievement. The terms intrinsic and extrinsic motivation have been expanded to include three separate subtypes. The three types of intrinsic motivation include: Intrinsic motivation to know the fact of performing an activity for the pleasure and the satisfaction that one experiences while learning, exploring, or trying to understand something new, intrinsic motivation to accomplish things- the fact of engaging in an activity for the pleasure and experience when one attempts to accomplish or create something, intrinsic motivation to experience stimulation- engaging in activity in order to experience stimulating sensations (sensory pleasure, fun and excitement) (Ryan & Deci, 2000). The three types of extrinsic motivation proposed consist of external regulation when behavior is regulated through external means such as rewards or constraints, introjection when individuals begin to internalize the reasons for his or her actions, and identification when action becomes so internalized that it is judged as important to the person (Ryan & Deci, 2000). Additionally, a third motivating factor was also

identified, amotivation. An amotivated person is neither intrinsically or extrinsically motivated. The individual does not perceive contingencies between the outcomes and their own actions. The behavior is caused by forces outside of an individual's own control (Ryan & Deci, 2000).

While some important variation exists (Nisan, 1992), there seems to be a wide-spread consensus among researchers and educators that enhancing intrinsic motivation among students is beneficial. Intrinsically motivated students participate in an activity for enjoyment, the learning it permits, and/or the sense of accomplishment it brings. Students' intrinsic motivation is enhanced when practices promote their sense of personal autonomy, when college work is challenging and relevant to students, when social relationships are supportive, and when environments are physically and psychologically safe. Intrinsic motivation is attenuated by the use of extrinsic rewards and tends to change or decrease as the age of the child increases (Goldberg, 1994). However, although the role of intrinsic motivation is acknowledged, yet much research has reported that extrinsic can't and should not be abandoned because research findings point consistently to a gradual decline in students' academic intrinsic motivation and sometimes also extrinsic motivation over years of schooling (Lepper et al., 2005). So, even though some researchers such as Wlodkowski (1986) criticized extrinsic motivation based on the moral contention that "bribing" students was inherently wrong, sometimes students are required to engage in tasks that they are not motivated to do. Therefore, extrinsic motivation cannot be, and should not be, abandoned (Hidi & Harackiewicz, 2000). Extrinsic motivation is preferable to having no motivation at all. Some perspectives also emphasize the possible motivational benefits of having both intrinsic and extrinsic motivation for an activity (Lepper & Henderlong, 2000). That is why educators should pursue the internalization of students' extrinsic motivation for various tasks.

Several researchers have suggested that only motivation directly affects academic achievement; all other factors affect achievement only through their effect on motivation (Tucker et al., 2002). As the objective of higher education is to foster high quality learning (Davidson, 2002), educators need to understand the factors that influence students' engagement in the learning process and subsequently impact on academic performance (Biggs, 1999) . Jenkins and Brew (2003) found that although students' needs and motivational stimulants are diverse, there are some commonalities among them. They include the need to please others (teachers, parents, etc.); the need to enhance their employability; the desire to belong to a group (such as the university or the department); (d) the desire to play a role (student, mathematician, etc.); and the motivation to enhance their self-efficacy through the acquisition of skills and knowledge. So, student motivation is influenced by both internal and external factors that can start, sustain, intensify, or

discourage behavior (Reeve, 1996). Internal factors include the individual characteristics or dispositions that students bring to their learning, such as their interests, responsibility for learning, effort, values and perceived ability (Ainley, 2004). For example, are students confident or fearful when they approach new learning tasks? Do they attribute success to luck, or do they appreciate the effort required? Do they feel in control of the factors that lead to success? It is also important to understand the external factors, which colleges can affect, the variables in learning conditions and environment that trigger, support, or change student motivation**.**

There are many extrinsic motivational factors that contribute to the progress of the Lebanese undergraduate students' academic achievement and performance in Southern Lebanon. The absence of these factors can be reasons behind the Lebanese undergraduate students' straying from the learning process. With respect to this aim, the present study raises the following research question: What are the major extrinsic and manageable motivational factors that may trigger undergraduate EFL (English as a Foreign Language) students to show better academic performance and achievement in their college?

Methodology

Cohen et al. (2005) draw that only empirical science can originate certain kinds of reliable knowledge. This science includes: experience, classification, quantification, discovery of relationships and approximation to the truth (pp. 5-6). For this reason, empirical research is also called experimental research, and relies on experience or observation and comes up with conclusions capable of being verified by observation or experiment (Kothari, 2004, p. 4). Like many linguists, Flood et al. (2005) discuss the fact that empirical research focuses on the collection, analysis, and interpretation of data that can be sensed or experienced in some way, either to answer research questions, to test hypotheses derived from theories, and/or to develop hypotheses or theories. They give examples of different forms of empirical research, according to the American Educational Research association (AERA), such as: experimental research, survey research, participant observational research, audiovisual recording analysis, in-depth interviewing and empirical historiography (Flood et al., 2005, p. 6). Finally, Kothari (2004) realizes that evidence gathered through experiments or empirical studies nowadays is considered to be the most powerful support for a given hypothesis (p. 4). Based on this the current study will use an experimental approach to analyze the data and verify the existence of a significant relationship between the various hypothesized variables and students' motivation and academic performance.

Statement of the Hypotheses

There are many motivational factors that contribute to the progress of the Lebanese undergraduate students' academic achievement and performance in Southern Lebanon. The absence of these factors can be the main reasons behind the Lebanese undergraduate students' straying from the learning process. This study hypothesized that the following observations would be depicted to check the main motivational factors that enhance the undergraduate academic performance and achievement.

Hypothesis 1: Students' motivation can be attributed to the match between the students' preferable modes of learning and the teacher's teaching style.

Hypothesis 2**:** Student's intrinsic motivation enhances his/her academic performance and achievement

Hypothesis 3: The well preparedness of the undergraduate students at high school motivates them to face the rigors of the college life confidently.

Hypothesis 4: The parental influence plays an essential role in motivating the college students to enhance their academic performance and achievement.

Hypothesis 5: There is a significant relationship between peer pressure and students' motivation.

Hypothesis 6: The students' satisfaction with the university's quality of education and services motivates them to enhance their academic performance and achievement.

Hypothesis 7: The teacher's teaching methods, personal qualities, and classroom management affect students' motivation to enhance their academic performance and achievement.

Hypothesis 8: There relation between gender and the various motivational factors hypothesized by the researcher is independent.

Participants

The target population of this study considered 300 respondents randomly selected from <blinded for peer review> (Saida Campus).These respondents comprise of 300 undergraduate students (185 females and 115 males with an average age of 19 years) pursuing various majors such as: Business, Education, Arts and Sciences, Engineering, and Pharmacy.

Design

The objective of quantitative research is to develop and employ mathematical models, theories, and/or hypotheses pertaining to phenomena (Punch, 2000). This positive approach is precise and produces reliable data and statistically significant results. Based on this, the researcher decided to apply the quantitative design relying heavily on the survey method to find out the influence of various cognitive and non-cognitive variables on the motivation of undergraduate students at <blinded for peer review>. This

quantitative design involved one survey: the Students' Assessment Survey (SAS). The data collection was treated through statistical analysis by means of descriptive statistical analysis. Moreover, the achieved numerical data were employed to determine the significance of the items in the conducted questionnaires in order to verify the research hypotheses.

Instrument

In order to obtain genuine results to prove the researcher's hypotheses, the researcher administered an instrument which is the Student Assessment Survey (SAS). The SAS is designed to identify students' perceptions of the main factors that motivate them EFL (English as a Foreign Language) undergraduate students at <blinded for peer review> (Saida Campus) to improve their academic performance and achievement. Information gathered from this survey are hoped to improve instruction, assessment, and learning in our classes at <blinded for peer review>. This instrument consists of seven parts was used to measure the variables of this study**.** The first three items were used to measure students' preferred learning strategies while the next five items were used to measure the undergraduate students' preferable modes of learning. The 9th item focused on students' level of motivation. The 10th and 11th items focused on assessing students' perceptions of their preparedness and readiness to deal with the rigors of college life and curriculum. The 12th and 13th items determined parental and peer influence on undergraduate student's motivation respectively. The 14th and 15th items were used to measure student's satisfaction with his/her university education and services. The 16th and 17th items determined the teachers' qualities and the classroom activities that were present when a student was either motivated or demotivated to attend a class. (See Appendix A)

Validity and Reliability of the Student Assessment Survey (SAS)
Reliability of the Student Assessment Survey (SAS)

Cronbach's Alpha is a coefficient of reliability. It is commonly used as a measure of the internal consistency or reliability of a psychometric test score for a sample of examinees. This indicator should be greater than 0.7 to consider the internal consistency among items as strong. If the indicator was weak we can also use the correlation test between each item and the average of the items for each factor, if the degree of significance (Sig) was less than the error ratio ($\alpha = 5\%$)$\rightarrow$ we consider the correlation valid and we do not delete any item. The below table, Table 1 displays the result of Cronbach's Test for reliability of the SAS**.** The result indicates that Cronbach's Alpha for the whole questionnaire is 0.816 (greater than 0.7). So, the questionnaire is considered reliable.

Table 10
Reliability Test of the Student Assessment Survey

Factors	**Cronbach's alpha**	**Items**	**Which items?**
Students' learning strategy	0.709	3	1, 2, 3.
Visual learner	-	1	4
aural learner	-	1	5
Read/Write learner	-	1	6
Kinesthetic learner	-	1	7
Multimodal learner	-	1	8
Students' level of intrinsic motivation	-	1	9
Assessing students' perceptions of their preparedness for university.	0.707	2	10, 11
Parental influences	-	1	12.
Peer influence on the undergraduate academic performance	-	1	13
Student's satisfaction with his/her university education and services.	0.967	2	14, 15
Activities that were present when a student was motivated to attend a class.	0.880	9	16 (a, b, c, d, e), 17 (a, b, c, d)
Total	**0.816**	**24**	

B. Validity Test for the Student Assessment Survey:

To validate the SAS, two tests were performed the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy, and the Bartlett's Test of Sphericity. KMO values usually vary between 0 and 1 whereas a value below 0.5 is considered as poor and a value of 0.6 and above is regarded as the cutoff point for acceptable results (Norusis, 2009). For the Bartlett's test of Sphericity, a value of ($p< .05$) is essential for adopting the results as acceptable. Both tests were performed to test the scale items in the questionnaire used for the data collection in this study.

Table 2
Validity Test of the Student Assessment Survey

Factors	**KMO**	**Significancy of Bartlett's Test of Sphericity**	**items**	**Which items?**
Students' learning strategy	0.602	0.000	3	1, 2, 3
Visual learner	-	-	1	4
Aural learner	-	-	1	5
Read/Write learner	-	-	1	6
Kinesthetic learner	-	-	1	7
Multimodal learner	-	-	1	8
Students' level of intrinsic motivation	-	-	1	9
Assessing students' perceptions of their preparedness for university.	0.650	0.000	2	10, 11
parental influences	-	-	1	12.
Peer influence on the undergraduate academic performance	-	-	1	13
Student's satisfaction with his/her university education and services.	0.700	0.000	2	14, 15
Activities that were present when a student was motivated to attend a class.	0.743	0.000	9	16 (a, b, c, d, e), 17 (a, b, c, d)
Total	**0.673**	**0.000**	**24**	

Table 2 displays the results of KMO test. The result indicates that KMO test of Sampling Adequacy is 0.673, which is above the required level of 0.6 for recognizing the acceptability of the results. Hence, the results of the KMO test are significant for the two factors. Also this table displays the results of Bartlett's Sphericity Test. The result indicates that values of the Bartlett's Sphericity Test are also significant for the two factors with (p=.000), and accordingly factor analysis is regarded as appropriate.

Procedure

Students were informed in a cover letter accompanying the survey instrument and also verbally, during class time, that participation in the survey was voluntary and that their anonymity was guaranteed. SAS presented seventeen items. It aimed at investigating the major motivational factors that enhance the undergraduate academic performance at <blinded for peer review> (Saida Campus). Each part provided statements to verify some of the researcher's hypotheses. Students were asked to tick the statements that represent themselves. The students carried on the instrument in the class during the time slot of their courses. The average time to finish the SAS was seven to ten minutes. The presence of the instructors and sometimes the researcher was important to provide any assistance in explaining terms or phrases students found difficult.

Results and Analysis of the Data

The findings of the students' answered questionnaires were entered and organized in a spreadsheet for statistical computation. In this study the researcher used the descriptive statistics to describe the basic features of the data in a study. Descriptive statistics are used to present quantitative descriptions in a manageable, sensible, and simple form. Narrative style was chosen to analyze the data. Moreover, in this study the Chi-square will be used since the tested variables are qualitative and the dependent variable is the gender. For all the above tests, we compare Sig (Degree of significance) with α (error ratio = 5% i.e. 0.05). If Sig > $\alpha \rightarrow$ There is no relation between the variables and vise Vera. Based on this, the researcher decided to study if the gender has an effect on the questions or not. So, this chapter reports the results of this study and analyzes the data collected.

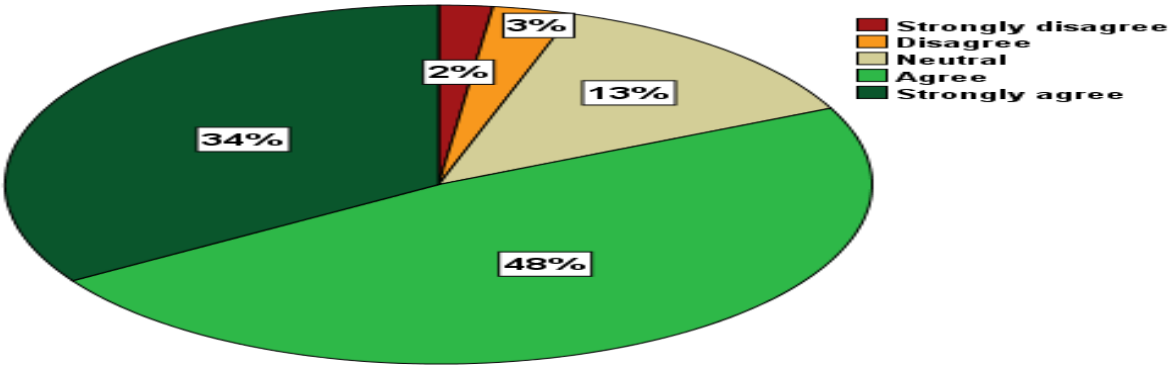
Analysis of Student Assessment Survey (SAS)

Appendix A: Student Assessment Survey (SAS)

I relate the new material with prior knowledge.

Fig. 1 shows that about 82 % of undergraduate students relate, connect and elaborate the materials with what they already have known.

Figure 1. Students who depend on association learning strategy



I depend on memorization to encode all new material.

Fig. 2 demonstrates that 46% of undergraduate students still prefer memorization as a learning strategy.

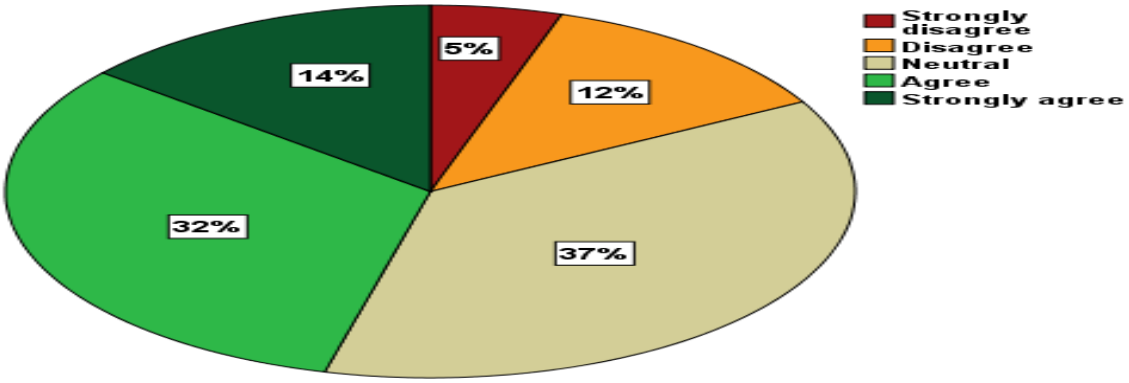


Figure 2. Students who depend on memorization learning strategy

I make sure to recall the most important concepts.

Fig. 3 illustrates that 70% of undergraduate students are able to conceptualize the application and get a bigger overall picture and ability to control the situation given.

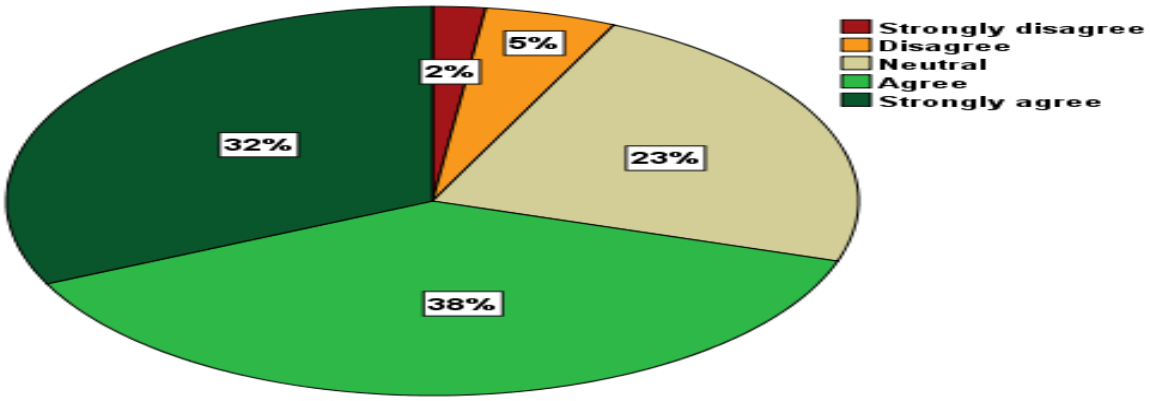


Figure 3. Students who depend on conceptualization learning strategy

I am a visual learner who learns best through visual experience (diagrams, graph, posters, video materials, or photography).

Fig. 4 shows that 62 % of undergraduate students prefer the visual learning mode

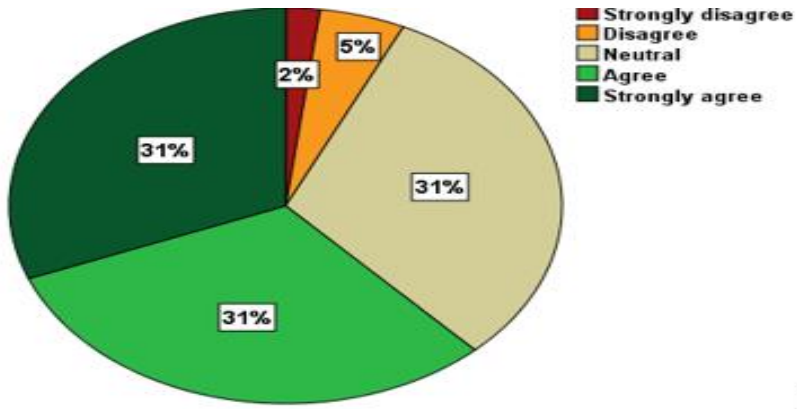


Figure 4. Visual learners

I am an aural learner who learns best through listening (discussion, debate, or audio materials).

Fig. 5 demonstrates that 51% of undergraduate students prefer the aural learning mode

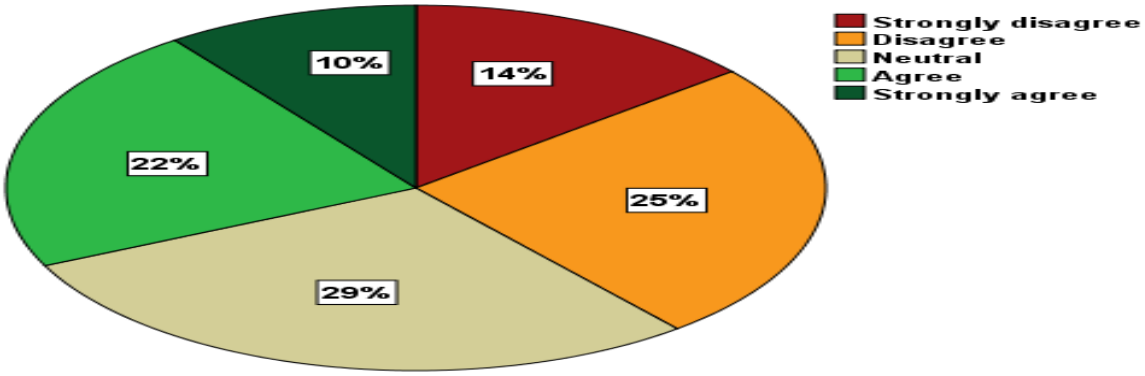


Figure 5. Aural Learners

I am a Read/Write learner who learns best through writing (taking notes, writing essays, handouts, or effective reading lists).

Fig. 6 illustrates that 71.00% of undergraduate students prefer the read/write learning mode

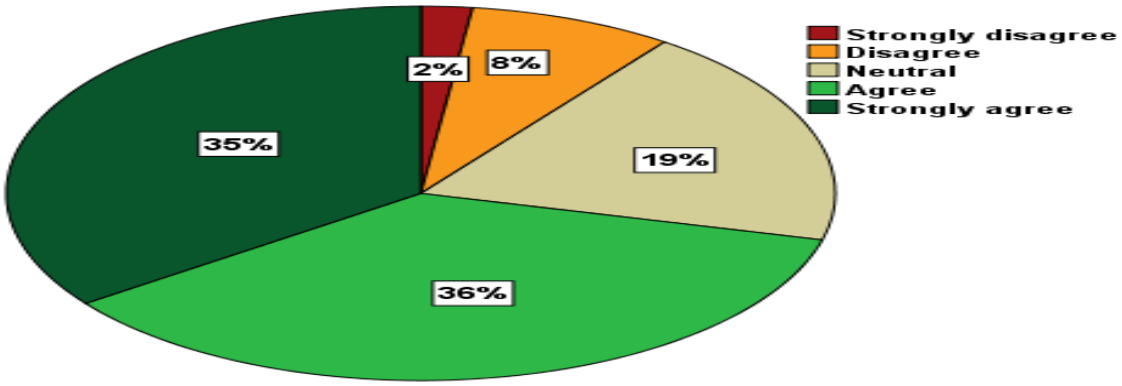


Figure 6. Read/Write learners

I am a kinesthetic learner who learns best through practical application (lab work, field trips, or role plays).

Fig. 7 shows that 68.00% of undergraduate students prefer the kinesthetic learning mode.

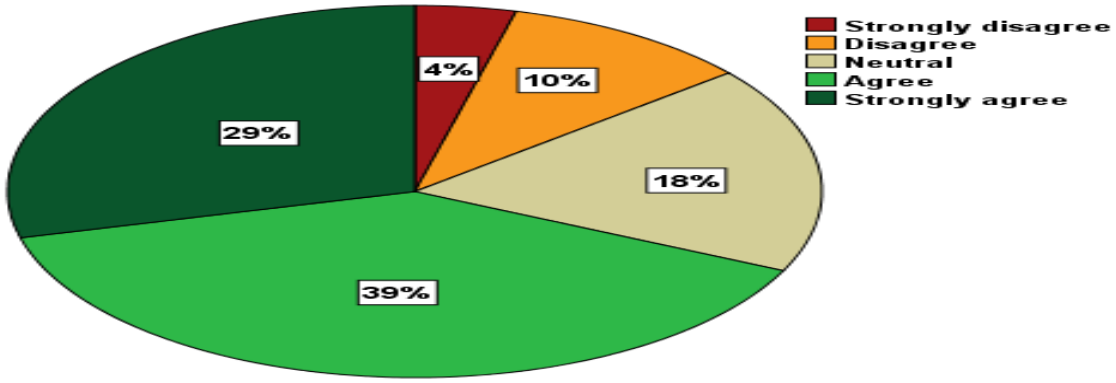


Figure 7. Kinesthetic learners

I am a Multimodal learner who has a joint preference for two or more learning modes

Fig. 8 shows that 39.00% of undergraduate students prefer to depend on multimode learning modes.

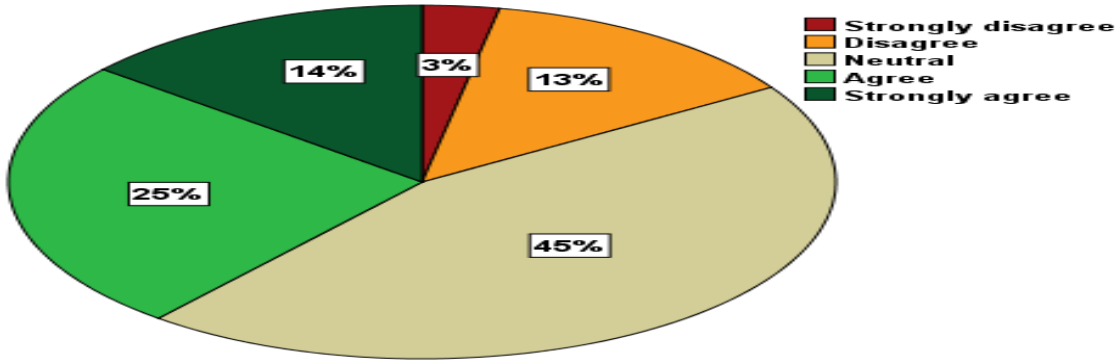


Figure 8. Multimodal learners

I am a student who works diligently on various tasks.

Fig. 9 demonstrates that 54% of students are intrinsically motivated to learn.

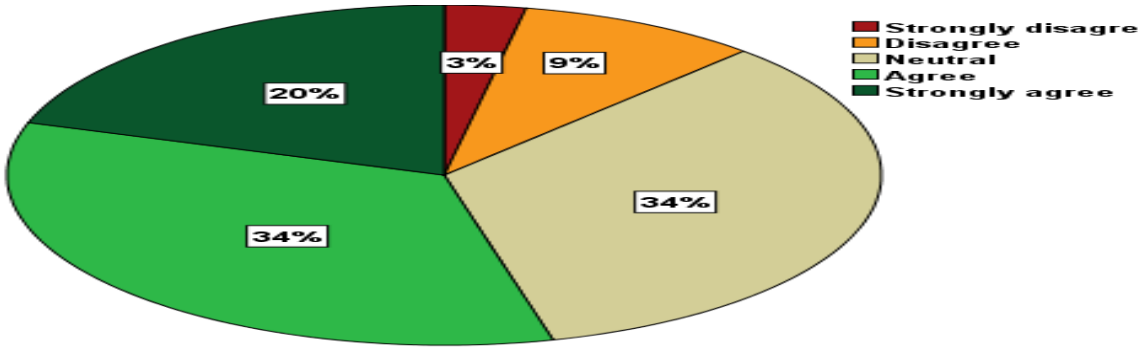


*Figure 9***.** Students who are intrinsically motivated

I am academically prepared to meet the rigors (strictness) of the college curriculum.

Fig. 10 shows that 52% of undergraduate students agree that they are academically prepared to meet the rigors of the college curriculum

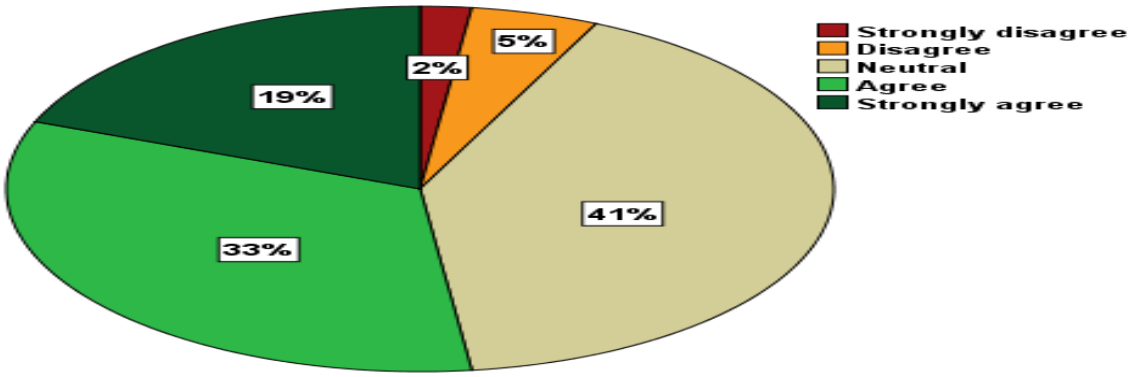


Figure 10. Academically prepared students

I can organize my own life as a student to cope with the stressors of college life.

Fig. 11 shows that 64.00% of undergraduate students agree that they are able to cope with the stressors of college life.

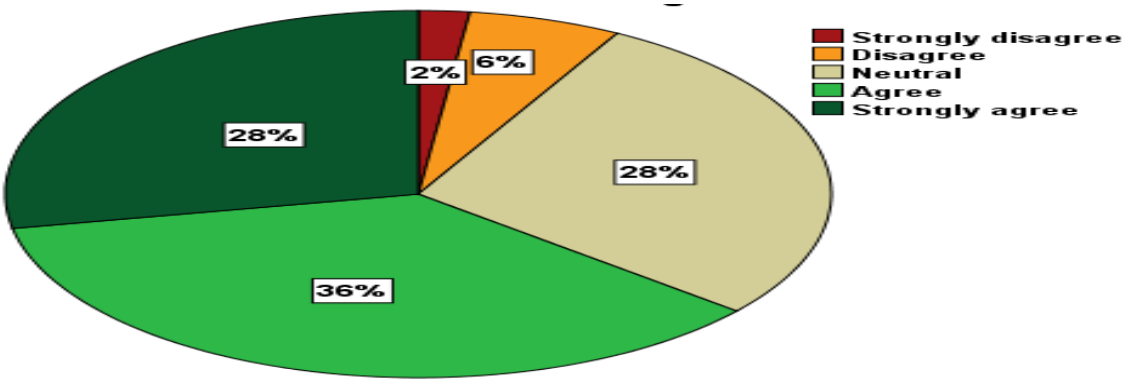


Figure 11. Coping with the stressors of college life

My parents still motivate me to acquire a high GPA (Grade Point Average).

Fig. 12 illustrates that 71.00% of undergraduate students are still affected by their parents' motivation.

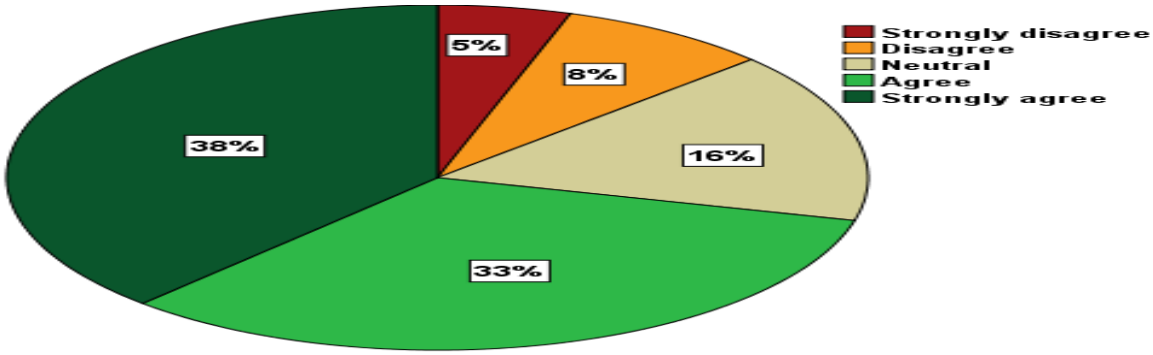


Figure 12. Parental Influence

Interaction with high achievers usually boosts me to achieve a high GPA.

Fig. 17 demonstrates that 74.00% of undergraduate students agree that peer influence is a significant factor in students" academic achievement and persistence.

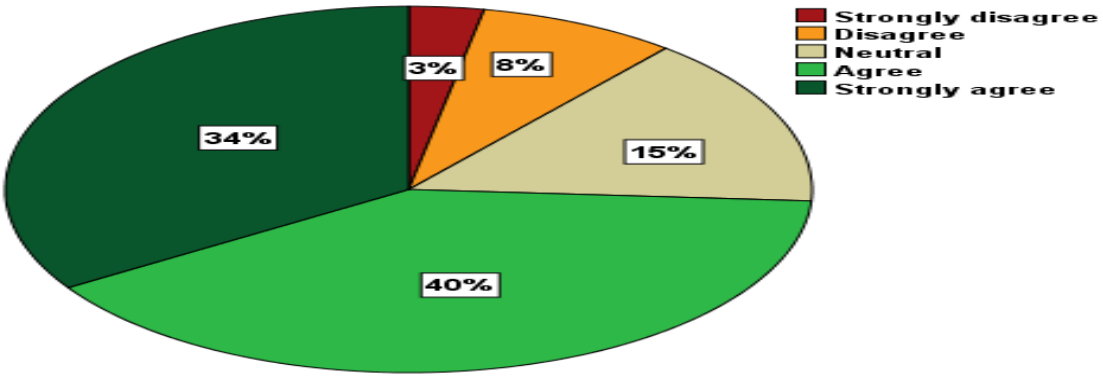


Figure 17. Peer influence

The money I have spent on my education is worth the learning I have acquired within the university.

Fig. 13 demonstrates that 39% of undergraduate students are satisfied by their education they have acquired within the university

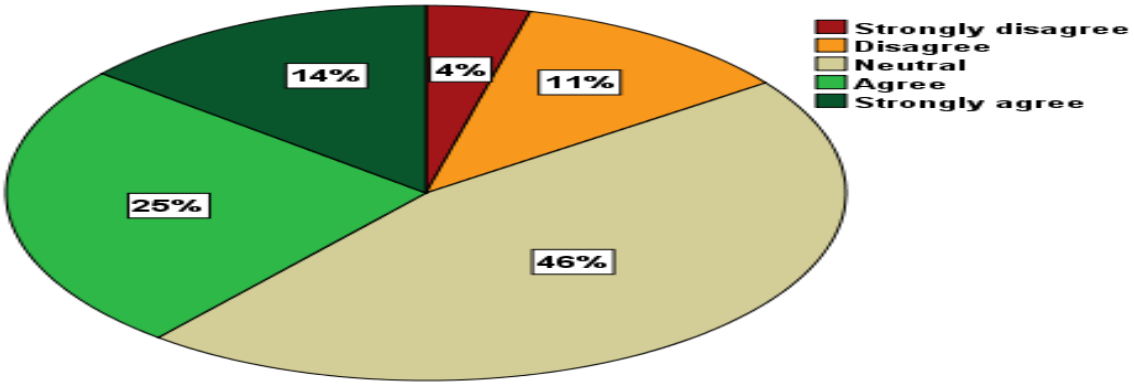


Figure 13. Students' satisfaction by their acquired education at <blinded for peer review>

The money I have spent on my education is worth the services I have acquired within the university.

Fig. 14 illustrates that 43% of undergraduate are satisfied students by the services they have acquired within the university.

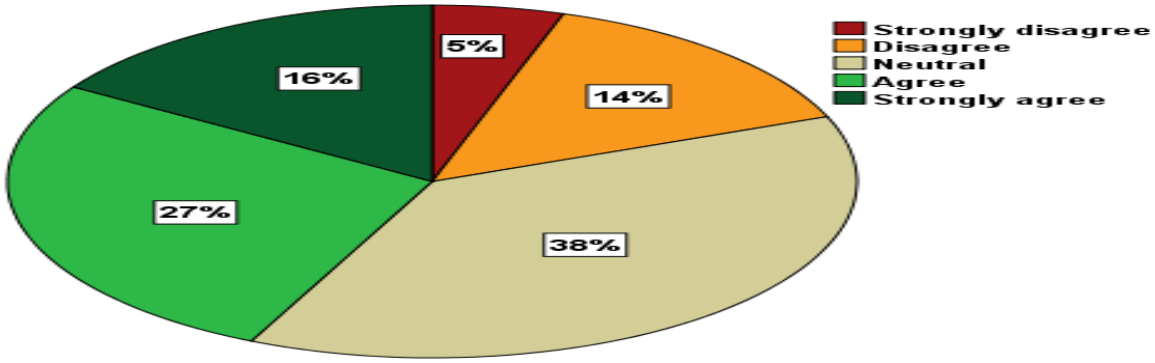


Figure 14. Students' satisfaction by their acquired education at <blinded for peer review>

Select the best three teaching methods that you believe enhance your academic performance:

Fig. 16 shows that 64.00% of undergraduate students prefer the integration of audio visual aids into classroom discussions still 81% prefer a variety of learning activities

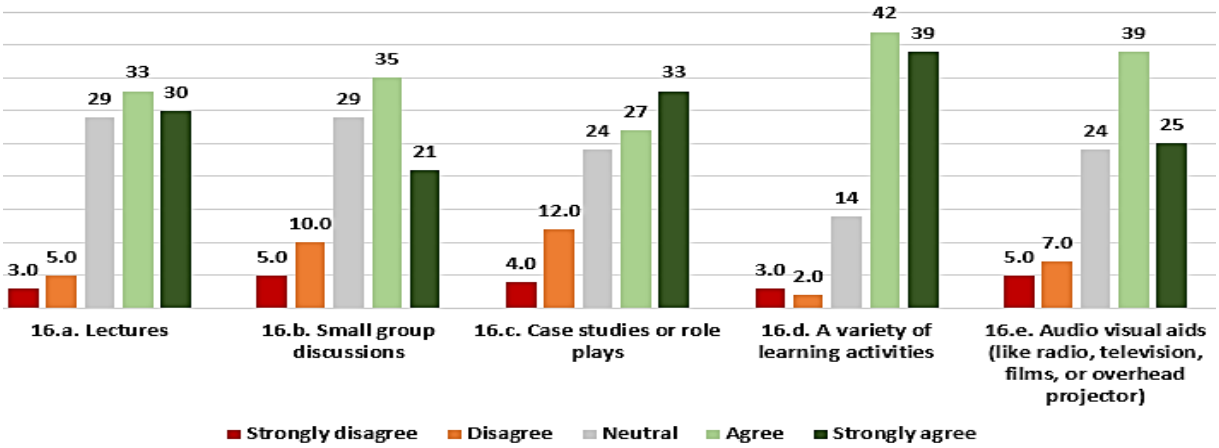


Figure 16. Best motivating teaching methods

I get motivated by instructors who are:

Fig. 17 demonstrates that most undergraduate students (about 81%) are motivated not only by knowledgeable instructors but also by those who are supportive and respectful towards students.

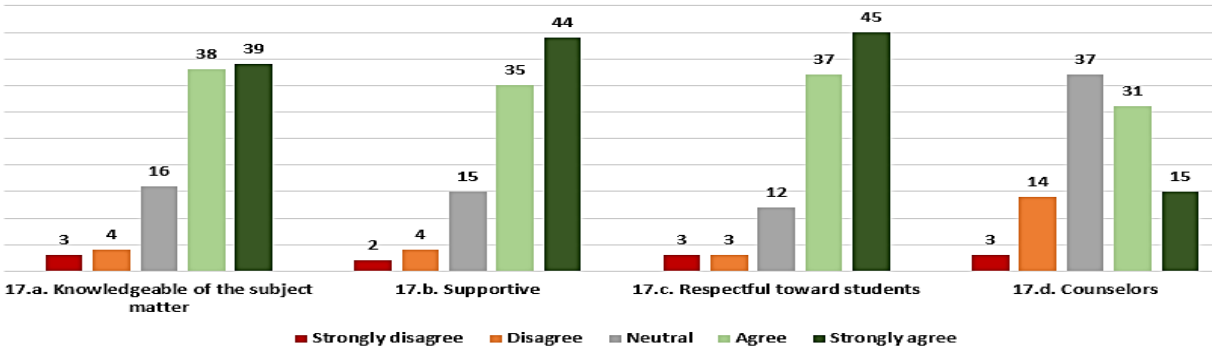


Figure 17. Qualities of motivating instructors

The classroom management procedures that the instructor follows to motivate learners are:

Table 1 illustrates that 68.00% of undergraduate students are motivated in classes where lessons are well planned.

Table 3

Motivating Classroom Management Procedures

Motivating Classroom Management Procedures	Percentage
Lessons were organized/well planned	**68.00%**
Course objectives were clear	**56.33%**
Control over the classroom	**56.00%**
Relaxed environment maintained	**51.00%**
The nee Needs of the students were met	**46.00%**
The class began and ended on time	**45.33%**
Students involved in direction of class	**42.67%**
Class time was well spent	**42.00%**
Directions were straightforward	**38.67%**

Discussion

The findings of appendix A validated the eight hypotheses suggested by the researcher to show that the major motivational factors that may contribute to the progress of undergraduate students at <blinded for peer review> are: academic well preparedness, match between learning and teaching strategies, positive peer pressure, parental support and follow-up, healthy university environment, and specific instructors' personality qualities, classroom management, and teaching techniques. In this study, the chi-square was used since the tested variables are qualitative and the dependent variable was the gender. The inferential statistics showed that there was no relation between the tested variables and the gender. Thus, the results were approximately the same with respect to males and females.

The results of this study can be effective to an extent that this study can be the milestone of a plan to cultivate a set of strategies to motivate undergraduate students especially during their first years at the university. If such students are more satisfied with their college experience, they are more likely to proceed in their education. Such satisfaction resulted by motivation may trigger something in students, whether it is a desire to learn or try harder, and convince them to achieve higher educational levels.

The first result that drew the researcher's attention in the results of the SAS is that about half (52%) of undergraduate students at <blinded for peer review> are intrinsically motivated to work hard on various tasks while the other half of students are not intrinsically motivated. However, according to the literature review of this study, such intrinsic motivation tends to decrease if students' interest and curiosity are not satisfied; moreover, intrinsic motivation is attenuated by the use of extrinsic rewards and tends to change or decrease as the age of the child increases (Goldberg, 1994). Although the role of intrinsic motivation is acknowledged, yet much research has reported that extrinsic motivation can't and should not be abandoned because research findings point consistently to a gradual decline in students' academic intrinsic motivation and sometimes also extrinsic motivation over years of schooling (Lepper et al., 2005). This assures the fact that the continuous effort to create a spark or energize students is an everlasting issue that develops and changes with time to match the changing demands of students, life, and society. Such result may make instructors, educational staff, and parents feel more responsible to manufacture more motivational strategies that can spur students' intrinsic or extrinsic motivation alike.

The second major finding of SAS is that most undergraduate students at <blinded for peer review> in Saida with an average age of 19 years prefer the conceptualization and the association learning strategies to the

memorization learning strategy in dealing with their college curriculum. Besides, most of these undergraduate students learn most effectively by depending on a variety of learning modes: 71% of the students depend primarily on the read/write learning mode, about 65% of the students prefer the kinesthetic and the visual learning modes, and lastly 51% of the students favor the auditory learning mode.

The third result of the students' survey illustrated that most undergraduate students at <blinded for peer review> agree that they are academically prepared to meet the rigors of college curriculum while most instructors at <blinded for peer review> complain that most of their undergraduate students are inadequately prepared to deal with the demands of higher education. Such under preparedness entails a combination of a lack in English proficiency, mathematical ability, and effective study skills. In fact, college curriculum is based on the premise that students have completed college prep courses while in high school, but many students complete high school and arrive confidently on a college campus to find that they are academically under prepared for course work in their first semester. Here appears the contradiction between some students' high motives and expectations of their prior academic preparedness and the instructors' evaluation of their students' academic preparedness that is based on students' performance and achievement. This can be one of the main causes of many students' dropout rate of college.

The review of literature, discussed in Chapter Two, provided the point that college teachers' classroom performance can highly influence undergraduate motivation. According to SAS, undergraduate students at <blinded for peer review> are highly motivated by instructors who are not only knowledgeable but are also primarily supportive and respectful towards students and use both multimedia tools and a variety of activities in their classrooms.

The last interesting results of SAS show that about half of the undergraduate students at <blinded for peer review> agree that the money they have spent on their education is worth the education and services they have acquired within the university. Besides, most of these students agree that their motivation to improve their academic performance is highly affected by both, peer and parental influence.

Conclusion

Eventually, students are the customers of the universities. Therefore, it is important for each university to focus on what motivates students to improve their academic performance. <blinded for peer review> classes in Saida campus are found to be heterogeneous with diverse population of students with respect to gender, age, socioeconomic status, English language

proficiency, study skills, presentation skills, educational background, and discipline. <blinded for peer review> undergraduate students assured, through the SAS, that various motivational factors affect students' attitudes about teaching/learning practices and environments. Such diversity requires more awareness, readiness, and equipment to meet the learning needs of all these students, increase their interest and success, and develop their skills in areas traditionally neglected by higher education. The literature review of this study shows that although there are studies which assure a positive relationship between intrinsic motivation and students' academic performance and achievement (Burton et al. 2006), other recent studies suggest that intrinsic and extrinsic motivation should be combined together in order to motivate the 21st individual student to get into action for a goal (Hayenga and Corpus 2010) and that it is important to continually create and adopt motivational strategies which meet the challenging needs of the 21st century students and respect their differences. Therefore, since most researchers and educators agree that no two students are the same, no two classes are the same, and that students' needs can also change within a semester, term, or year, it is important to consider the positive relationship between the various extrinsic motivational factors suggested in this study and their validated effect on students' intrinsic and extrinsic motivations to show better academic achievement and performance. Thus, this study is helpful in the field of education, for it aims to guide instructors, students, administrators, parents, educators, policymakers, and all educational staff to understand how motivational factors affect undergraduate students' academic achievement and implement changes and adjustments in strategies and practices which may motivate undergraduate students at <blinded for peer review>, improve their academic performance and achievement, and at last, ensure that every student feels safe, supported, and valued.

Recommendations

Based on the prior conclusion, the researcher finds it worth to recommend the following:

A. Importance of developing new, advanced, multimedia, and integrated-skill instructional approaches to match between students' learning preferences and instructors' teaching styles: An effective matching between teachers' teaching styles and students' preferable learning strategies and modes can only be achieved when teachers recognize their students' needs, capacities, potentials, and learning preferences and modes, make them explicit to their students, bring them to their attention and talk about them, encourage students to use them in the classroom, and base their teaching processes and techniques on their students' learning preferences. Such identification of the students' learning strategies and modes shows teachers'

respect and consideration for each individual student identity. This identification also helps teachers and students select and implement more effective and multimodal strategies and materials. If this match is achieved, teachers can familiarize themselves with the students' different learning strategies and modes by addressing their strengths and weaknesses, likes and dislikes in relation to how students learn best. This result shows the necessity of training college teachers, especially rookies in the field of teaching and education, on a regular basis to keep them updated and ready to deal professionally with the students' diversity. In fact, many teachers could be very knowledgeable, creative, caring and enthusiastic yet they may fail to facilitate learning for students whose strengths or learning strategies or modes are not acknowledged or addressed by the teaching methods implemented in the classroom.

B. Instructors' direct access to students' profile: Such information allows for shaping instructional delivery and/or designing support programs that foster students' success and increase their retention**.**

C. Establishing a special department for advising, counseling, and guiding undergraduate students (especially underprepared students): The main role of this department is to look at the up to date needs of the students and find outlets to make college life less stressful especially for undergraduate students. Undergraduate students recognize the presence of personal and academic stress in their lives. Stressors can be addressed through support groups, counseling, and academic support. Given the effects of stress on health and academic performance, college administrators should consider intertwining stress management training in with orientation activities. Students should be informed of the resources available on campus to help them through their stress. Stress in college cannot be prevented, but we can do a better job at educating students on how to prepare and manage stress. For example, in an effort to fill the gap between the undergraduate academic under preparedness and the rigors of college curriculum, such a department can teach students effective strategies in dealing with their lack in academic proficiency (study skills, reading and writing skills, and language barriers). Without such intervention (guidance and support), under prepared students frequently continue to be low achievers and faculties will suffer because it will be forced to lower their expectations to meet the competencies of under prepared or too many students will fail.

D. Designing a guide to help underprepared undergraduate students (mainly for those in southern Lebanon) in addressing the challenges of college curriculum: Offering a guide that includes various samples of placement tests, academic requirements for college entry and success, and an assessment tool to be used throughout high school to help students understand their relative readiness for college, and help them address any identified

deficiencies. Such a guide can prepare students academically, help them complete the steps for college entry, and make it more probable that they would enroll upon acceptance.

E. Guiding the school community, through special programs, to prepare secondary students to master prerequisite competences necessary to meet the rigors of college life and curriculum successfully: Most undergraduate students at <blinded for peer review> (Saida Campus) come from certain schools; however, < Blinded for peer review> can help these schools through special programs to prepare large proportions of their students to successfully pursue college curriculum challenges.

F. Parents' Access to the Students' Academic Performance File: Louis, Leithwood, Anderson, & Wahlstorm (2010) found that high student achievement is linked to the combined influence of educators, parents, and others. Universities should publish reports of the students' academic achievement and mail such reports to parents to encourage parents to assist these students, instill an educational environment in their homes, and may be guide or reward them.

G. The Necessity of Administering a Valid Bilingual (Arabic and English) Assessment Tool to Measure Students' Needs and Expectations: These questionnaires are the best means to assess students' major motivational factors to attend a class and their expectations of the university education and services at the beginning of each semester and another bilingual questionnaire to assess students' satisfaction by the university's education and services at the end of each semester. This can help educators in investigating and analyzing the students' recipe of motivation to improve their academic performance in higher education with the intention of developing some of these strategies.

H. Administering the same study in other <blinded for peer review> campuses and branches or in other universities: Universities can profit from a synthesis of such research findings associated with the improvement of academic achievement of undergraduate Lebanese students. These findings can also motivate many policymakers, educators, scholars, and instructors to unite and develop a strategic plan to deal professionally with the various factors that affect on students' intrinsic and extrinsic motivation which changes as students' progress in college from the first to the final year.

Reference:

1. Ainley, J., & Luntley, M. (2004, June). *What teachers know: The knowledge bases of classroom practice.* Final report on AHRB project: Attention and the Knowledge Bases of Expertise. University of Warwick, UK.
2. Alkış, N. (2015). The influence of personality traits, motivation and persuasion principles on academic performance (Unpublished Doctoral Dissertation). Middle East Technical University, Ankara.
3. Baumeister, R. F., & Vohs, K. D. (2007). Self-regulation, ego depletion, and motivation. Social and Personality Psychology Compass, 1(1), 115–128.
4. Bennett, R. (2003), "Determinants of undergraduate student dropout rates in a university business studies department", *Journal of Further and Higher Education, 27* (2): 123-141.
5. Biggs, J. (1999). *Teaching for Quality Learning at University*. Buckingham: SRHE and Open University Press.
6. Burton, K. D., Lydon, J. E., D'Alessandro, D. U., & Koestner, R. (2006). The differential effects of intrinsic and identified motivation on well-being and performance: Prospective, experimental, and implicit approaches to self-determination theory. Journal of Personality and Social Psychology, 91, 750–762. doi:10.1037/0022-3514.91.4.750
7. Cohen, L., Manion, L. and Morrison, K. (2005). *Research Methods Education* (5th ed.) USA and Canada: Routledge Falmer.
8. Davidson, R. (2002) Relationship of study approach and exam performance. *Journal of Accounting Education, 20* (1), 29-44.
9. Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. Psychological Inquiry, 11, 227–268. doi:10.1207/S15327965PLI1104_01
10. Deci, E. L., & Ryan, R. M. (2002). Handbook of self-determination research. Rochester, NY: University of Rochester Press.
11. Deci, E. L., & Ryan, R. M. (2016). Optimizing students' motivation in the era of testing and pressure: A self-determination theory perspective. In Building autonomous learners. Singapore: Springer.
12. Flood, J., Lapp, D., Squire, J., Jensen, J. (2005). *Methods Of Research On Teaching The English Language Arts.* New Jersey: LEA (ISBN: 0-8058-5258-1).
13. Garret, J. B. (2001). Gender differences in college related stress. *Undergraduate Journal of Psychology, 14.*

14. Goldberg, M. D. (1994). A developmental investigation of intrinsic motivation: Correlates, causes, and consequences in high ability students. *Dissertation Abstract Inter*national, 55-04B, 1688.
15. Hidi, S., & Harackiewicz, J. M. (2000). Motivating the academically unmotivated: A critical issue for the 21st century. *Review of Educational Research, 70* (2), 151–179.
16. Hadfield, J., & Dörnyei, Z. (2013). *Motivating learning: Research and resources in language teaching*. Harlow, UK: Pearson.
17. https://archive.org/.../DictionaryOfLanguageTeachingAndAppliedLinguistics/Dictionary
18. Hayenga, A. O., & Corpus, J. H. (2010). Profiles of intrinsic and extrinsic motivations: A person-centered approach to motivation and achievement in middle school. Motivation and Emotion, 34(4), 371–383.
19. Jenkins, A., Breen, R., Lindsay, R., Brew, A. (2003). *Reshaping teaching in higher education: Linking teaching with research.* Sterlying, VA, and London: Kogan Page.
20. Khansir, A. A., Jafarizadegan, N., & Karampoor, F. (2016). Relation between socio-economic status and motivation of learners in learning English as a foreign language. *Theory and Practice in Language Studies*, *6*(4), 742.
21. Kian, T., Yusoff, W., & Rajah, S. (2014). Motivation for generations' cohorts: An organizational justice perspective. International Journal of Management Sciences, 11(2), 536–542.
22. Kothari, C.R. (2004). *Research Methodology: Methods and techniques.* India: New Age Pub. (ISBN (13): 978-81-224-2488-1 .
23. Küçüközkan, Y. (2015). Liderlik ve motivasyon teorileri: Kuramsal bir çerçeve. Uluslararası Akademik Yönetim Bilimleri Dergisi, 1(2), 86–115.
24. Leppr, M. R., & Henderlong, J. (2000). Turning "play" into "work" and "work" into "play": 25 years of research on intrinsic versus extrinsic motivation. In C. Sansone & J. M. Harackiewicz (Eds.), *Intrinsic and extrinsic motivation: The search for optimal motivation and performance*, 257–307. San Diego, CA: Academic Press.
25. Lepper, M. R., Henderlong Corpus, J., & Iyengar, S. S. (2005). Intrinsic and extrinsic motivational orientations in the classroom: Age differences and academic correlates. *Journal of Educational Psychology, 97*, 184–196.
26. Louis, K.S., Dretzke, B., & Wahlstrom, K. (2010). How does leadership affect student achievement? Results from a national US survey. School Effectiveness and School Improvement, 21(3), 315336

27. Lumsden, L.S. (1994). Student motivation to learn. *ERIC* Digest, Number 92.
28. Mouton, J.S. and Blake, R.R. (1984). *Synergogy: A New Strategy for Education, Training, and Development*.
29. Murphy,F. (2006). Motivation in nurse education practice: A case study approach. *British Journal of Nursing,15* (20),1132-1135.
30. Newmann, F.M., Byrk, A.S., & Nagaoka, J. (2001, January). *Authentic intellectual work and standardized tests: Conflict or coexistence*. Chicago: Consortium on Chicago School Research. Retrieved July 18, 2011, from http://ccsr.uchicago.edu/publications/p0a02.pdf.
31. Palmer, D. (2007). What Is the Best Way to Motivate Students in Science? *Teaching Science-The Journal of the Australian Science Teachers Association, 53*(1), 38-42.
32. Reeve, J (1996). Motivating others: *Nurturing inner motivational resources.* Retrieved March 16, 2012 from http://www.teachingenglish/blogs/jasyang1101/student-motivation-entirely-responsibility-teacher.
33. Scheidecker, D. and W. Freeman (1999). *Bringing Out the Best in Students: How Legendary Teachers Motivate Kids*. Thousand Oaks, CA: Corwin Press, 117. In Dörnyei, Z. (2001). *Motivational Strategies in the Language Classroom*. Cambridge: Cambridge University Press, *13.*
34. Seiler, S., Lent, B., Pinkowska, M., & Pinazza, M. (2012). An integrated model of factors influencing project managers' motivation—Findings from a Swiss survey. International Journal of Project Management, 30(1), 60–72.
35. Spaulding, C. L. (1992). Motivation in the Classroom New York: McGraw-Hill.
36. Tracy, P. (2000). Intrinsic Motivation. *Journal of Teachers Net Gazette 1* (6).
37. Tuckerman B. W. (**2003).** *Journal of College Student Development, 44* (3), 430-437.
38. Tucker, C. M., Zayco, R. A., & Herman, K. C. (2002). Teacher and child variables as predictors of academic engagement among low-income African American children. *Psychology in the Schools, 39* (4), 477-488.
39. Turan, Z. (2015). The evaluation of flipped classroom method and examination of its effects on academic achievement, cognitive load and motivation (Unpublished Doctoral dissertation). Atatürk University, Erzurum.

40. Waterman, A. S. (2005). When effort is enjoyed: Two studies of intrinsic motivation for personally salient activities. Motivation and Emotion, 29(3), 165–188.
41. Wlodkowski, R. J. (1986). Motivation and Teaching. Washington: National Education Association.

Appendix A: Student Assessment Survey

Student's Initials: ---- ---------- Gender: Male/ Female Age: ----------	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. I relate the new material with prior knowledge.					
2. I depend on memorization to en all new the material.					
3. I make sure to recall the most important concepts.					
4. I am a visual learner who learns best through visual experience (diagrams, graph, posters, video materials, photography).					
5. I am an aural learner who learns best through listening (discussion, debate, audio materials)					
6. I am a Read/Write learner who learns best through writing (taking notes, writing essays, handouts, effective reading lists)					
7. I am a Kinesthetic learner who learns best through practical application (lab work, field trips, role play)					
8. I am a Multimodal learner who has a joint preference for two or more approaches					
9. I am a student who works diligently on various tasks.					
10. I'm academically prepared to meet the rigors (strictness) of the college curriculum.					
11. I can organize my own life as a student to cope with the stressors of college life.					

12. My parents still motivate me to acquire a high GPA.					
13. Interaction with high achievers usually boosts me to achieve a high GPA					
14. The money I have spent on my education is worth the learning I've acquired within the university.					
15. The money I have spent on my education is worth the services I've acquired within the university					
16. The best three teaching methods that you believe can enhance your academic performance are:					
a. Lectures					
b. Small group discussions					
c. Case studies or role plays					
d. A variety of learning activities					
e. Audio visual aids (like radio, television, films, or overhead projector)					
16. I get motivated by instructors who are: a. Knowledgeable of the subject matter					
b. Supportive					
c. Respectful toward students					
d. Counselors					
e. Delegator					
f. Role model					

Comparing Child Laborers and Not-Working Children: Subjective Well-Being, Engagement and Motivation to Study

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Abstract

The aim of this study is to compare children who are child laborers and those not working in terms of subjective well-being, engagement and motivation, and levels of liking school. The study group consisted of 120 male students (60 students were child laborers; the other students did not work) in two secondary schools. In this study, the motivation to study scale, the class engagement scale, and the subjective well-being scale were used. The Mann Whitney-U Test and Kruskal Wallis Variance Analysis Test were used to analyze the data. In this study, differences were found between the child labor group and non-working groups of students in terms of motivation to study, engagement in class and subjective well-being. With respect to child labor, it was found that as the liking of school increased, the subjective well-being, class engagement and motivation to study levels increased. Conversely, with respect to not-working children, it was found that as the liking of school, class engagement and motivation to study levels increased.

Keywords: Child labor, school liking, engagement, motivation, well-being.

Introduction

Article Individuals experience various stages of development along the way to becoming an adult (Erikson, 1968). Childhood is one of these developmental periods. Specifically, individuals between the ages of 3 and 18 are defined as children (Santrock, 2006; Woodhead, 1999). Children should

be supported physiologically, psychologically and socially for their healthy development (Santrock, 2006). However, some children might not be sufficiently supported for healthy development and might even be expected to support others. These children are defined as working children—child labor. Child laborers are both vulnerable and might not experience a healthy development process (Fyfe, 1989; Woodhead, 1999). Studying child labor at this point might contribute to the literature.

Although there is not a complete understanding of the concept of child labor, there are various definitions of child labor. For instance, Bulut and Gülcan (2007) describe child labor as children who work with any craftsman or work in a variety of industries or in agriculture, alone or with their family. In general, when an evaluation is made, it can be concluded that working children are mostly living in poor or developing countries (Ray, 2000). Child laborer families are poor, and the children work to bring income to the family (Walkerdine, 2005). There are many reasons for being a child laborer, including the presence of a crowded population, lack of educational opportunities, poverty, migration and the economic value of the child in the traditional sense rather than the psychological value (Fyfe, 1989; Tor, 2010).

When overall evaluations are made, the conclusions are that the educational, psychological and social needs of child laborers must be satisfied. According to the results of the studies, the fact that child laborers are away from the academic environment (Ravallion &Wodon, 2000) causes them to have health problems and experiences decreases in their level of well-being (Estacio & Marks 2005). Additionally, there have been negative effects from being a child laborer, such as security problems, economic exploitation, accidents and injuries, and school problems (Woodhead, 1999).

The literature reveals that indirect and direct research results indicate that the well-being of child laborers is adversely affected. For example, poor child laborers are negatively affected by poverty (Biggeri &Mehrotra, 2011). The level of well-being of child laborers decreases due to their working (Biggeri, Libanora, Mariani & Menchini, 2006). Studies show that child laborers experience poor working conditions, poor treatment and abuse in the working environment, and serious levels of injury due to accidents and injuries (Woodhead, 1999). In Turkey, there are studies on the subjective well-being of children who do not work at a job (Eryılmaz, 2011, 2012; Uçan & Esen, 2015; Tagay & Baltacı, 2017). No studies compare the subjective well-being of children who do not work in a job with that of children working in a job. In particular, more work is done on children working in the street in Turkey (Bilgin, 2009; Erdoğdu & Oto, 2004; Yılmaz, Göçen & Yılmaz, 2012). Conversely, there are very few studies on children who continue their education and work part-time. Neither worldwide (Hobbs & Cornwell, 1986) nor in Turkey are these issues examined in detail.

Studies on child labor show that being a working child adversely affects a child's educational life. For both child laborers and non-working children, there are two important factors in motivation and engagement in educational experiences. Motivation affects the power, direction and energy of children's studies. High motivation is also necessary for student achievements (Covington, 1998; Martin, 2003; Eccles, 1983; Wigfield, 1994). In addition to motivation, student engagement (cognitive, behavioral and emotional) in the course of learning is also effective in their success and in their learning of a subject (Fredricks, Blumenfeld & Paris, 2004; Li & Lerner 2011; Skinner, Furrer, Marchand & Kindermann, 2008). Child laborers are absent because they must go to work. Due to this situation, their level of attendance in school and class decreases (Beegle, Dehejia & Gatti, 2009; Binder & Scrogin, 1999; Dorman, 2008; Heady, 2003). In the literature, there are no direct studies in terms of motivation status to study lesson motivation (intrinsic, extrinsic and amotivation) and engagement (cognitive, behavioral and emotional) of children who are child laborers and not-working children.

Being child laborers causes children to be neglected in terms of education. Studies have revealed that working in a job takes the children away from school and causes them to spend less time at school (Beegle, Dehejia, & Gatti, 2009; Binder, & Scrogin, 1999; Dorman, 2008; Heady, 2003). The results of these studies reveal the importance of bringing children closer to school. There can be organizational arrangements to bring children closer to school, such as poverty reduction. At the same time, child-related variables might be an important factor in children's approach to school. For instance, the child liking school and being interested in the lessons are important factors in helping the child laborer to attach to the school (Goulart & Bedi, 2008). However, in the literature, the number of studies comparing children who are child laborers and not-working children in terms of attitudes toward school is very small.

It is also important to address school-related factors in child labor research because continuing education is an important tool in preventing child labor (Rossi & Rosati, 2007). However, child laborers might not all have similar attitudes toward school. At this point, levels of liking school should also be examined in studies. No studies have been found comparing children who are child laborers and not-working children in terms of subjective well-being, engagement and motivation with levels of liking school. The aim of this study is to compare children who are child laborers and not-working children in terms of subjective well-being, engagement and motivation with levels of liking school.

Method

Research Design

The aim of this study is to compare children who are child laborers and those not working in terms of subjective well-being, class engagement and motivation to study with levels of liking school. The study was conducted using cross-sectional models. The study sought answers to the following questions:

1. Is there a significant difference between children who are child laborers and not-working children in terms of subjective well-being, engagement (cognitive, behavioral and emotional) in class, and motivation to study (intrinsic, extrinsic and amotivation)?
2. Do working children's subjective well-being, class-engagement (cognitive, behavioral and emotional), motivation to study (intrinsic, extrinsic and amotivation) differ significantly in terms of level of school liking?
3. Do not-working children's subjective well-being, class-engagement (cognitive, behavioral and emotional), motivation to study (intrinsic, extrinsic and amotivation) differ significantly in terms of level of school liking?

In the study, data were collected one application at a time. The study examined whether the sample met the parametric conditions in terms of variables. In this respect, the normality assumption (Kolmogrov Simigrov Test, Shapiro Wilks Test) and homogeneity of variances (Levene Test) were tested. The results showed that the sample did not meet the parametric conditions in terms of variables. In the light of these analyses, the first question of the study was analyzed with the Mann Whitney-U Test. Kruskal Wallis Variance Analysis was used for the second and third questions. A set of exclusion criteria was also established in the study. First, for child laborers in addition to students working part-time in a job, the condition of continuing schooling was sought. Additionally, for not-working children, only the condition of continuing schooling was sought. Not having received any psychiatric diagnosis was also required of both groups. Particularly for the child laborers, inclusion criteria such as working for half a day after school, being paid for their work, and not working occasionally were established. Lastly, the districts in which the students of the study group (child laborers and not-working children) live are districts in which families with low socioeconomic status live. The income level of the children included in the study was lower than 2000 (nearly 333 Dollars) Turkish Liras as a criterion for inclusion in the study.

Study Group

The study group consisted of 120 male students (60 students were child laborers; the others did not work) in two secondary schools in Istanbul. Of the students in the study, 78 (65%) were in the 7th grade and the remaining 42 (35%) were in the 8th grade. Thirty-nine of the seventh graders were part-time working students (child labor), and 39 of them did not work in a job. Twenty-one of the eighth graders were part-time working students (child labor), and 21 of them did not work in a job. The age range was between 11 and 15 (mean = 12.76; standard deviation = 0.89). When we examined the distribution by age, 7 (5.8%) students were 11 years old, 41 (34.2%) students were 12 years old, 48 (40%) students were 13 years old, 21 (17.5%) students were 14 years old, and 3 (2.5%) students were 15 years old. The districts in which the students of the study group live are districts in which families with low socioeconomic status live.

Instruments

The scale of motivation to study: This four-point Likert-type scale consisting of thirteen items was developed by Eryılmaz and Ercan (2014). The reliability coefficient (Cronbach's alpha) for the whole scale was found to be 0.80. It consists of 3 sub-dimensions. These sub-dimensions are "intrinsic motivation", "extrinsic motivation" and "amotivation". The Cronbach's alpha value of the intrinsic motivation sub-dimension was 0.81, the Cronbach's alpha value of the extrinsic motivation sub-dimension was 0.84, and the Cronbach's alpha of the amotivation sub-dimension was 0.75.

Adolescent subjective well-being scale: The adolescent subjective well-being scale was developed by Eryilmaz (2009). The scale is a four-point Likert type and consists of 15 items. The Cronbach's alpha value was found to be 0.86 for the whole scale. The scale consists of 4 sub-dimensions: "Satisfaction with family relationships", "positive affection", "life satisfaction", and "satisfaction with relationships via significant others". The Cronbach's alpha value of the satisfaction with family relationships sub-dimension was 0.83, the Cronbach's alpha value of the satisfaction with relationships via significant others was 0.73, the Cronbach's alpha value of the life satisfaction subscale was 0.81, and the Cronbach's alpha value of the positive affection sub-dimension was 0.66.

Class engagement scale: This scale was developed by Eryılmaz (2014). The scale of class engagement consists of 15 items that are answered as "not suitable at all", "not suitable", "a little appropriate", "appropriate", and "completely appropriate". The scale consists of three dimensions: emotional engagement, cognitive engagement and behavioral engagement. The Cronbach's alpha value of the total points of the scale was determined to be 0.92. The Cronbach's alpha value of the emotional engagement sub-dimension

was 0.84, the Cronbach's alpha value of the behavioral engagement sub-dimension was 0.86, and the Cronbach's alpha value of the cognitive engagement sub-dimension was 0.84.

Findings

Comparison of the child laborers and not-working children

In this study, the child laborers and not-working children were initially compared in terms of subjective well-being, class engagement (cognitive, behavioral and emotional) in class, and motivation to study (intrinsic, extrinsic and amotivation). The Mann-Whitney U test technique was used in the comparison. The results are given in Table 1.

Table 1. Descriptive statistics and results of Mann Whitney U test

Variables		Condition of being child labour	n	x̄	Sd	Mean ranks	U	Z
1.	SW FR	Child labours	60	14,03	2,93	54,73	1453.50	-1.96*
		Not working children	60	14,70	2,47	66,28		
2.	PE	Child labours	60	12,10	3,17	53,16	1359.50	-2.33*
		Not working children	60	13,42	2,37	67,84		
3.	SW RSO	Child labours	60	13,02	2,96	54,96	1467.50	-1.79
		Not working children	60	13,90	2,90	66,04		
4.	SW L	Child labours	60	8,85	2,63	54,27	1426.00	-1.99*
		Not working children	60	9,81	2,03	66,73		
5.	TP SWB	Child labours	60	48,01	9,95	52,32	1309.00	-2.58*
		Not working children	60	51,85	8,44	68,68		
6.	EE	Child labours	60	18,22	5,15	51,39	1253.50	-2.88**
		Not working children	60	20,81	4,16	69,61		
7.	BE	Child labours	60	18,21	5,16	51,58	1264.50	-2.82*
		Not working children	60	20,71	4,24	69,43		
8.	CE	Child labours	60	17,74	5,24	51,23	1244.00	-2.92**
		Not working children	60	20,46	4,09	69,77		
9.	TP CE	Child labours	60	54,18	14,54	50,47	1198.00	-3.16**
		Not working children	60	61,98	11,71	70,53		
10.	IM	Child labours	60	18,91	4,25	53,58	1384.00	-2.95*
		Not working children	60	20,42	3,49	67,43		
11.	EM	Child labours	60	11,81	2,80	56,55	1563.00	-1.25
		Not working children	60	12,42	2,83	64,45		
12.	A	Child labours	60	6,33	2,62	69,77	1244.00	-2.97**
		Not working children	60	5,05	2,57	51,23		

Note: *p<.05 **p<.01; 1. SWFR: Satisfaction with family relationships; 2. PE: Positive affection; 3. SWRSO: Satisfaction with relationships via significant others; 4. SWL: Satisfaction with life; 5. TPSWB: Total point of subjective well-being; 6. EE: Emotional engagement ;7. BE: Behavioural engagement; 8. CE: Cognitive engagement; 9. Total point of class-

engagement; 10. IM: Intrinsic motivation; 11. EM: Extrinsic motivation; 12. A: Amotivation

As shown in Table 1, the Mann-Whitney U test was used to examine whether the scores of the scales (subjective well-being, class engagement and motivation to study) used in the study showed a significant difference between child laborers and not-working children. The results indicated that there was a significant difference between child laborers' mean ranks (54.73) and not-working children mean ranks (66.28) with respect to satisfaction with family relationships (U = 1453.50, Z = -1.96; p<.05). There was a significant difference between child laborers' mean ranks (53.16) and not-working children mean ranks (67.84) with respect to positive affection (U=1359.50, Z=-2.33; *p<.05*). There was a significant difference between child laborers' mean ranks (54.27) and not-working children's mean ranks (66.73) with respect to satisfaction with life (U=1426.50, Z=-1.99; *p<.05*). There was a significant difference between child laborers' mean ranks (52.32) and not-working children's mean ranks (68.68) with respect to total points of subjective well-being (U=1309.50, Z=-2.58; *p<.05*). A significant difference existed between child laborers' mean ranks (51.39) and not-working children's mean ranks (69.61) with respect to emotional engagement (U=1253.50, Z=-2.88; *p<.01*). There was a significant difference between child laborers' mean ranks (51.58) and not-working children's mean ranks (69.43) with respect to behavioral engagement (U=1264.50, Z=-2.82; *p<.05*). A significant difference existed between child laborer's mean ranks (51.23) and not-working children's mean ranks (4.09) with respect to cognitive engagement (U=1244.00, Z=-2.92; *p<.01*). There was a significant difference between child laborers' mean ranks (50.47) and not-working children's mean ranks (70.53) with respect to total points of class engagement (U=1198.00, Z=-3.16; *p<.01*). There was a significant difference between child laborers' mean ranks (4.25) and not-working children's mean ranks (3.49) with respect to intrinsic (U=1384.50, Z=-2.95; *p<.05*). There was a significant difference between child laborers' mean ranks (2.62) and not-working children's mean ranks (2.57) with respect to amotivation (U=1244.00, Z=-2.97; *p<.01*). Additionally, there were no significant differences between child laborers' mean ranks and not-working children's mean ranks with respect to extrinsic motivation and satisfaction with relationships via significant others.

Investigation of Variables Depending upon School Liking Levels: In this study, whether laborer children's subjective well-being, class-engagement (cognitive, behavioral and emotional), motivation to study (intrinsic, extrinsic and amotivation) differ significantly in terms of level of school liking was examined by the Kruskal-Wallis test method.

Comparison of the child laborers in terms of level of school liking

Table 2. Results of Kruskal-Wallis test for child labours

Variables	School liking levels	n	$\bar{x}$	Sd	Mean ranks	Median	X^2
1.SWFR	Some	18	13,05	3,36	24,69	15,00	5,46
	Mostly	23	14,18	2,59	29,39		
	Too much	19	14,78	2,78	37,34		
2. PE	Some	18	10,18	3,26	19,78	13,00	10,61**
	Mostly	23	12,59	2,87	32,93		
	Too much	19	13,31	2,70	37,71		
3.SWRSO	Some	18	11,38	3,20	21,58	14,00	7,06*
	Mostly	23	13,86	2,47	34,91		
	Too much	19	13,56	2,77	33,61		
4.SWL	Some	18	7,39	2,68	21,19	9,00	8,36*
	Mostly	23	9,22	2,32	32,22		
	Too much	19	9,78	2,46	37,24		
5.TPSWB	Some	18	42,02	10,58	19,19	50,00	11,39**
	Mostly	23	49,86	8,16	33,48		
	Too much	19	51,46	9,19	37,61		
6.EE	Some	18	13,59	3,48	14,36	18,52	26,04**
	Mostly	23	18,81	4,69	32,54		
	Too much	19	21,89	3,57	43,32		
7.BE	Some	18	13,55	4,05	14,64	19,00	22,68**
	Mostly	23	19,34	5,05	34,48		
	Too much	19	21,25	2,71	40,71		
8.CE	Some	18	13,16	4,31	15,36	18,00	22,02**
	Mostly	23	18,56	4,74	33,09		
	Too much	19	21,09	3,41	41,71		
9.TPCE	Some	18	40,31	10,56	13,56	56,00	27,07**
	Mostly	23	56,72	13,73	33,63		
	Too much	19	64,24	7,04	42,76		
10.IM	Some	18	16,01	4,71	18,72	20,00	14,06**
	Mostly	23	19,41	3,96	31,91		
	Too much	19	21,06	2,36	39,95		
11.EM	Some	18	9,49	3,03	16,33	12,00	19,08**
	Mostly	23	12,43	2,42	33,20		
	Too much	19	13,26	1,32	40,66		
12.A	Some	18	6,99	2,73	34,61	6,00	1,57
	Mostly	23	6,21	2,67	29,61		
	Too much	19	5,84	2,45	27,68		

Note: *p<.05 **p<.01; 1. SWFR: Satisfaction with family relationships; 2. PE: Positive affection; 3. SWRSO: Satisfaction with relationships via significant others; 4. SWL: Satisfaction with life; 5. TPSWB: Total point of subjective well-being; 6. EE: Emotional engagement; 7. BE: Behavioural engagement; 8. CE: Cognitive engagement; 9. Total point of class-

engagement; 10. IM: Intrinsic motivation; 11. EM: Extrinsic motivation; 12. A: Amotivation

As shown in Table 2, with respect to the positive emotion dimension, the Kruskal-Wallis test indicated that a significant difference existed between groups in which child laborers are involved in terms of school liking ($\chi 2=10.61$, $df = 2$; $p< .01$). The Mann-Whitney U test was used to determine the difference between the groups. According to the results of the test ($U=112.00$, $p<.05$), the difference was found to be between the group that likes (mean ranks = 19.78) school somewhat and the group that mostly likes (mean ranks = 32.93) school. Additionally, according to the results of the test ($U=73.00$, $p<. 01$), the difference was found to be between the group that like some (mean ranks = 19.78) from school and the group that like too much (mean ranks = 37.71) from school. Moreover, according to the results of the test, no difference was found between the group that like mostly from schools and the group that likes school too much.

As shown in Table 2, with respect to the satisfaction with relationships via significant others dimension, the Kruskal-Wallis test indicated that a significant difference existed between groups in which child laborers are involved in terms of school liking ($\chi 2=7.06$, $d.f.=2$, $p< .05$). The Mann-Whitney U test was used to determine the difference between the groups. According to the results of the test ($U=114.00$, $p<.05$), the difference was found to be between the group that like some (mean ranks = 21.58) from school and the group that like mostly (mean ranks = 34.91) from school. Additionally, according to the results of the test ($U=103.50$, $p<. 05$), the difference was found to be between the group that like some (mean ranks = 21.58) from school and the group that like too much (mean ranks = 33.61) from school. Moreover, according to the results of the test, no difference was found between the group that like mostly from schools and the group that like too much from school.

As shown in Table 2, with respect to the satisfaction with life dimension, the Kruskal-Wallis test indicated that a significant difference existed between groups in which child laborers are involved in terms of school liking ($\chi 2=8.36$, $d.f.=2$, $p< .05$). The Mann-Whitney U test was used to determine the difference between the groups. According to the results of the test ($U=129.00$, $p<.05$), the difference was found to be between the group that like some (mean ranks = 21.19) from school and the group that like mostly (mean ranks = 32.22) from school. Additionally, according to the results of the test ($U=81.50$, $p<. 01$), the difference was found to be between the group that like some (mean ranks = 21.19) from school and the group that like too much (mean ranks = 37.24) from school. Moreover, according to the results of the test, no difference was found between the group that like mostly from schools and the group that like too much from school.

As shown in Table 2, with respect to the total points of subjective well-being dimension, the Kruskal-Wallis test indicated that a significant difference existed between groups in which child laborers are involved in terms of school liking *(χ2=11.39, d.f.=2, p< .01)*. The Mann-Whitney U test was used to determine the difference between the groups. According to the results of the test *(U=104.50, p<.01)*, the difference was found to be between the group that like some (mean ranks = 19.19) from school and the group that like mostly (mean ranks = 33.48) from school. Additionally, according to the results of the test *(U=70.00, p<. 01)*, the difference was found to be between the group that like some (mean ranks = 19.19) from school and the group that like too much (mean ranks = 37.61) from school. Moreover, according to the results of the test, no difference was found between the group that like mostly from schools and the group that like too much from school.

As shown in Table 2, with respect to the emotional engagement dimension, the Kruskal-Wallis test indicated that a significant difference existed between groups in which child laborers are involved in terms of school liking *(χ2=26,04, d.f.=2, p< .01)*. The Mann-Whitney U test was used to determine the difference between the groups. According to the results of the test *(U=68.00, p<.05)*, the difference was found to be between the group that like some (mean ranks = 14.36) from school and the group that like mostly (mean ranks = 32.54) from school. Additionally, according to the results of the test *(U=19.50, p<. 01)*, the difference was found to be between the group that like some (mean ranks = 14.36) from school and the group that like too much (mean ranks = 43.32) from school. Moreover, according to the results of the test, the difference was found *(U=126.50, p< .05)* to be between the group that like mostly (mean ranks = 32.54) from school and the group that like too much (mean ranks = 43.32) from school.

As shown in Table 2, with respect to the behavioral engagement dimension, the Kruskal-Wallis test indicated that a significant difference existed between groups in which child laborers are involved in terms of school liking *(χ2=22.68, d.f.=2, p< .01)*. The Mann-Whitney U test was used to determine the difference between the groups. According to the results of the test (*U=76.00, p<.01)*, the difference was found to be between the group that like some (mean ranks = 14.64) from school and the group that like mostly (mean ranks = 34.48) from school. Additionally, according to the results of the test *(U=16.50, p<. 01)*, the difference was found to be between the group that like some (mean ranks = 14.64) from school and the group that like too much (mean ranks = 40.71) from school. Moreover, according to the results of the test, no difference was found between the group that like mostly from school and the group that like too much from school.

As shown in Table 2, with respect to the cognitive engagement dimension, the Kruskal-Wallis test indicated that a significant difference

existed between groups in which child laborers are involved in terms of school liking ($\chi 2=22.02$, $d.f.=2$, $p< .01$). The Mann-Whitney U test was used to determine the difference between the groups. According to the results of the test ($U=79.00$, $p<.01$), the difference was found to be between the group that like some (mean ranks = 15.36) from school and the group that like mostly (mean ranks = 33.09) from school. Additionally, according to the results of the test ($U=26.50$, $p<. 01$), the difference was found to be between the group that like some (mean ranks = 15.36 from school and the group that like too much (mean ranks = 41.71) from school. Moreover, according to the results of the test, no difference was found between the group that like mostly from school and the group that like too much from school.

As shown in Table 2, with respect to total points of class engagement, the Kruskal-Wallis test indicated that a significant difference existed between groups in which child laborers are involved in terms of school liking ($\chi 2=27.07$, $d.f.=2$, $p< .01$). The Mann-Whitney U test was used to determine the difference between the groups. According to the results of the test ($U=67.00$, $p<.01$), the difference was found to be between the group that like some (mean ranks = 13.56) from school and the group that like mostly (mean ranks = 33.63) from school. Additionally, according to the results of the test ($U=6.00$, $p<. 01$). the difference was found to be between the group that like some (mean ranks = 13.56) from school and the group that like too much (mean ranks = 42.76) from school. Moreover, according to the results of the test, no difference was found between the group that like mostly from school and the group that like too much from school.

As shown in Table 2, with respect to intrinsic motivation, the Kruskal-Wallis test indicated that a significant difference existed between groups in which child laborers are involved in terms of school liking ($\chi 2=14.06$, $d.f.=2$, $p< .01$). The Mann-Whitney U test was used to determine the difference between the groups. According to the results of the test ($U=117.50$, $p<.05$), the difference was found to be between the group that like some (mean ranks = 18.72) from school and the group that like mostly (mean ranks = 31.91) from school. Additionally, according to the results of the test ($U=48500$, $p<. 01$), the difference was found to be between the group that like some (mean ranks = 18.72) from school and the group that like too much (mean ranks = 39.95) from school. Moreover, according to the results of the test, no difference was found between the group that like mostly from school and the group that like too much from school.

As shown in Table 2, with respect to extrinsic motivation, the Kruskal-Wallis test indicated that a significant difference existed between groups in which child laborers are involved in terms of school liking ($\chi 2=19.08$, $d.f.=2$, $p< .01$). The Mann-Whitney U test was used to determine the difference between the groups. According to the results of the test ($U=85.50$, $p<.01$), the

difference was found to be between the group that like some (mean ranks = 16.33) from school and the group that like mostly (mean ranks = 33.20) from school. Additionally, according to the results of the test *(U=37.50, p<. 01)*, the difference was found to be between the group that like some (mean ranks = 16.33) from school and the group that like too much (mean ranks = 40.66) from school. Moreover, according to the results of the test, no difference was found between the groups that like mostly from school and the group that like too much from school. Finally, with respect to amotivation and satisfaction with family relationships, no differences were found between the groups.

Comparison of the not-working children in terms of level of school liking

Table 3. Results of Kruskal-Wallis test for not-working children

Variables	School liking levels	n	$\bar{x}$	Sd	Mean ranks	Median	X^2
1.SWFR	Some	17	14,00	3,16	25,74	16,00	2,38
	Mostly	15	14,73	2,81	33,23		
	Too much	28	15,11	1,70	31,93		
2. PE	Some	17	12,43	2,84	23,32	14,00	5,92
	Mostly	15	13,06	2,63	28,50		
	Too much	28	14,22	1,61	35,93		
3.SWRSO	Some	17	12,76	3,61	24,82	15,00	2,78
	Mostly	15	14,00	3,20	31,70		
	Too much	28	14,55	2,03	33,30		
4.SWL	Some	17	9,35	2,49	27,71	10,00	3,27
	Mostly	15	9,33	2,02	25,80		
	Too much	28	10,36	1,63	34,71		
5.TPSWB	Some	17	48,55	10,81	23,65	54,58	4,77
	Mostly	15	51,13	9,23	29,40		
	Too much	28	54,25	5,40	35,25		
6.EE	Some	17	17,52	5,38	18,62	21,49	12,32**
	Mostly	15	21,46	2,87	31,33		
	Too much	28	22,46	2,57	37,27		
7.BE	Some	17	17,92	5,50	21,26	22,00	6,73*
	Mostly	15	21,66	3,48	33,87		
	Too much	28	21,89	2,87	34,30		
8.CE	Some	17	17,45	5,16	19,26	21,00	9,96*
	Mostly	15	21,80	2,65	35,43		
	Too much	28	21,57	3,04	34,68		
9.TPCE	Some	17	52,90	15,16	19,03	65,50	10,33**
	Mostly	15	64,93	7,99	34,00		
	Too much	28	65,92	7,59	35,59		
10.IM	Some	17	18,72	4,12	23,03	21,65	4,64
	Mostly	15	20,66	3,67	31,73		
	Too much	28	21,33	2,63	34,38		
11.EM	Some	17	11,05	2,77	21,91	12,50	10,99**
	Mostly	15	11,46	3,31	25,73		
	Too much	28	13,76	1,95	38,27		

12.A	Some	17	6,47	3,08	38,62	4,00	8,94*
	Mostly	15	3,93	1,98	21,57		
	Too much	28	4,78	2,18	30,36		

Note: *p<.05 **p<.01; 1. SWFR: Satisfaction with family relationships; 2. PE: Positive affection; 3. SWRSO: Satisfaction with relationships via significant others; 4. SWL: Satisfaction with life; 5. TPSWB: Total point of subjective well-being; 6. EE: Emotional engagement; 7. BE: Behavioural engagement; 8. CE: Cognitive engagement; 9. Total point of class-engagement; 10. IM: Intrinsic motivation; 11. EM: Extrinsic motivation; 12. A: Amotivation

As shown in Table 3, with respect to the emotional engagement dimension, the Kruskal-Wallis test indicated that a significant difference existed between groups in which not-working children are involved in terms of school liking *($\chi 2=12.32$, d.f.=2, p< .01)*. The Mann-Whitney U test was used to determine the difference between the groups. According to the results of the test *(U=71.50, p< .05)*, the difference was found to be between the group that like some (mean ranks = 18.62) from school and the group that like mostly (mean ranks = 31.33) from school. Additionally, according to the results of the test *(U=92.00, p<. 01)*, the difference was found to be between the group that like some (mean ranks = 18.62) from school and the group that like too much (mean ranks = 37.27) from school. Moreover, according to the results of the test, no difference was found between the group that like mostly from school and the group that like too much from school.

As shown in Table 3, with respect to the behavioral engagement dimension, the Kruskal-Wallis test indicated that a significant difference existed between groups in which not-working children are involved in terms of school liking *($\chi 2=6.73$, d.f.=2, p< .05)*. The Mann-Whitney U test was used to determine the difference between the groups. According to the results of the test *(U=131.00, p<. 05)*, the difference was found to be between the group that like some (mean ranks = 21.26) from school and the group that like mostly (mean ranks = 33.87) from school. Moreover, according to the results of the test, no difference was found between the group that like mostly from school and the group that like too much from school. No difference was found between group that like some from school and the group that like too much.

As shown in Table 3, with respect to the cognitive engagement dimension, the Kruskal-Wallis test indicated that a significant difference existed between groups in which not-working children are involved in terms of school liking *($\chi 2=9.96$, d.f.=2, p< .01)*. The Mann-Whitney U test was used to determine the difference between the groups. According to the results of the test *(U=57.00, p<.01)*, the difference was found to be between the group that like some (mean ranks = 19.26) from school and the group that like mostly

(mean ranks = 35.43) from school. Additionally, according to the results of the test *(U=117.50, p<. 01)*, the difference was found to be between the group that like some (mean ranks = 19.26) from school and the group that like too much (mean ranks = 34.68) from school. Moreover, according to the results of the test, no difference was found between the group that like mostly from school and the group that like too much from school.

As shown in Table 3, with respect to total points of the class engagement dimension, the Kruskal-Wallis test indicated that a significant difference existed between groups in which not-working children are involved in terms of school liking *(χ2=10.33, d.f.=2, p< .01)*. The Mann-Whitney U test was used to determine the difference between the groups. According to the results of the test *(U=61.00, p<.05)*, the difference was found to be between the group that like some (mean ranks = 19.03) from school and the group that like mostly (mean ranks = 34.00) from school. Additionally, according to the results of the test *(U=149.50, p<. 05)*, the difference was found to be between the group that like some (mean ranks = 19.03) from school and the group that like too much (mean ranks = 35.59) from school. Moreover, according to the results of the test, no difference was found between the group that like mostly from school and the group that like too much from school.

As shown in Table 3, with respect to the extrinsic motivation dimension, the Kruskal-Wallis test indicated that a significant difference existed between groups in which not-working children are involved in terms of school liking *(χ2=10.99, d.f.=2, p< .01)*. The Mann-Whitney U test was used to determine the difference between the groups. According to the results of the test *(U=106.00, p<.01)*, the difference was found to be between the group that like some (mean ranks = 21.91) from school and group that like mostly (mean ranks = 25.73) from school. Additionally, according to the results of the test *(U=124.50, p<. 05)*, the difference was found to be between the group that like mostly (mean ranks = 25.73) from school and the group that like too much (mean ranks = 38.27) from school. Moreover, according to the results of the test, no difference was found between the group that like same from school and the group that like mostly from school.

As shown in Table 3, with respect to the amotivation dimension, the Kruskal-Wallis test indicated that a significant difference existed between groups in which not-working children are involved in terms of school liking *(χ2=8.49, d.f.=2, p< .05)*. The Mann-Whitney U test was used to determine the difference between the groups. According to the results of the test *(U=63.50, p<.01)*, the difference was found to be between the group that like some (mean ranks = 38.62) from school and the group that like mostly (mean ranks = 21.57) from school. Moreover, according to the results of the test, no difference was found between the group that like mostly from school and the

group that like too much from school. No difference was found between group that like some from school and the group that like too much. Finally, with respect to satisfaction with family relationships, positive affection, satisfaction with life, satisfaction with relationships via significant others, total points of subjective well-being and intrinsic motivation, no differences were found between the groups.

Conclusion

In this study, differences were found between the child labor group and non-working groups of students in terms of motivation to study, engagement in class and subjective well-being. With respect to child labor, as liking of school increased, subjective well-being, class engagement and motivation to study levels increased. Conversely, with respect to not-working children, as liking of school increased, class engagement and motivation to study levels increased.

Generally, evaluating the results of this study reveals that the children (child laborers) who work part-time in a job have lower levels of subjective well-being, class engagement, and motivation to study than do those children who do not work in a job. This result is generally consistent with the literature because the studies found that the levels of well-being of children who work part-time (child laborers), their academic motivation and engagement in class were lower than were the corresponding levels of those who did not work (Beegle, Dehejia & Gatti, 2009; Biggeri, Libanora, Mariani & Menchini, 2006; Biggeri & Mehrotra, 2011; Dreze & Kingdon, 2001; Estacio & Marks 2005; Woodhead, 1999). Part-time work in a job adversely affects students in Turkey. This result appears to support universal explanations of the nature of being a working child (child laborers).

In this study, differences between the groups (child laborers and not-working children) in terms of extrinsic motivation and satisfaction with relationships via significant others were not found significant. The reason for this result might be sought in the nature of the relevant variables. For instance, extrinsic motivation is associated with rewarding and punishment (Deci & Ryan, 1985). In both groups, punishment and reward are separate factors from the internal structures of individuals. The relationship with significant others is related to individuals such as relatives and friends (Eryılmaz, 2009). Relationships with parents and siblings are evaluated in terms of satisfaction with the relationships with the family. These factors are less likely to affect individuals because they are not included in the inner world of individuals. Consequently, there might be no difference between the groups due to the low importance of the related variables for individuals.

According to the results of the study, level of school liking for non-working students is related to academic variables rather than to subjective

well-being. This result can have two meanings. The first is that not-working children's subjective well-being was already high compared with the child laborers. The second is that a certain level of subjective well-being of these children might be a sign that they need not raise their subjective well-being in the school context.

Being a working child adversely affects the educational experiences of children. These negative effects lead children to attend school but decrease their motivation for school and lessons (Beegle, Dehejia & Gatti, 2009; Dreze & Kingdon, 2001). The findings of this study generally confirm the aforementioned effects for working children. When poverty is controlled in working children, the factor that is important in academic success is that the child likes school and is interested in lessons (Goulart & Bedi, 2008).

The students who work in a job and who like school more were found to have higher motivation to study, class engagement and subjective well-being compared with other students who work in a job and who like school less. For working children (child laborers), the importance of liking school points to the concept of psychological resilience in the psychology literature. According to the psychological resilience model, for children, poverty and work in a job are considered environmental risk factors that adversely affect psychological resilience. Conversely, school is one of the environmental protection factors for psychological resilience (Masten, 1994; Masten & Reed, 2002). In summary, if the working children's school liking levels increase, their subjective well-being, class engagement, and motivation to study also increase because liking school also means responding to the school's demands. Students who respond to these demands develop qualifications. In these conditions, the academic achievement of students who like school might increase. They experience low emotional problems and establish positive social relationships. Their psycho-social compliance might also increase (Masten, 1994; Masten & Reed, 2002). In future, studies research on school liking and psychological resilience might be productive.

Applications: In addition, the satisfaction of working children (child laborers) with family relationships does not change depending upon whether they like the school, possibly because of the disorganized and disinterested families of working children (Walkerdine, 2005). Particularly in Turkey, the families of working children support their children in attending school due to legal necessity. If there is no legal obligation, the parents might want to take their children away from school during that time. These results indicate that families of working children must be supported by relevant institutions in economic, educational and psychological aspects and must be informed.

This study was conducted on non-working students and on part-time working students at a job. The results of the study showed the importance of liking school, particularly for working children. At this point, based on the

results of the study, it is advisable to maintain a positive attitude toward school development programs for working and not-working children. In terms of social services, the results of this study revealed that working children's educational needs should not be neglected.

References:

1. Abu-Hilal, M. M. (2000). A structural model of attitudes towards school subjects, academic aspiration and achievement. *Educational Psychology*, 20(1), 75-84.
2. Beegle, K.,Dehejia, R. & Gatti, R. (2009). Why should we care about child labor? The education, labor market, and health consequences of childlabor. *Journal of Human Resources*, 44(4), 871-889.
3. Biggeri, M., Libanora, R., Mariani, S. & Menchini, L. (2006). Children conceptualizing their capabilities: results of a survey conducted during the first children's world congress on child labour. *Journal of Human Development*, 7(1), 59
4. Biggeri, M. & Mehrotra, S. (2011). Child poverty as capability deprivation: How to choose domains of child well-being and poverty. In *Children and the capability approach*(pp. 46-75). Palgra ve Macmillan, London.
5. Bılgın, R.(2009). Diyarbakır'da Sokakta Çalışan Çocuklar Üzerin Sosyolojik Bir Araştırma. *Electronic Journal of Social Sciences*, 8(27), 232-244.
6. Binder, M. & Scrogin, D. (1999). Labor force participation and houshold work of urban schoolchildren in Mexico: Characteristics and consequences. *Economic Development and Cultural Change*, 48(1), 123-154.
7. Covington, M.V. (1998). *Thewilltolearn: A guide for motivatingyoung people.*UK: Cambridge University Press.
8. Deci, E. & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human Behaviour*. New York: Plenum.
9. Dorman, P. (2008). *Child labour, education and health: A review of the literature*. Geneva: ILO.
10. Dreze, J. & Kingdon, G. G. (2001). School participation in rural India. *Review of Development Economics*, 5(1), 1-24.
11. Eccles, J. (1983). Expectancies, values, and academic behaviors. In J. Spence (Ed.), *Achievement and achievement motivation*. San Francisco: Freeman.
12. Erdoğdu, M. Y. & Oto, R. (2004).Sokakta çalışan ve çalışmayan çocukların atılganlık ve saldırganlık davranışları açısından karşılaştırılmaları. *Kriz Dergisi*, 12(3), 11-23.

13. Erikson, E. H. (1968). Life cycle. *International encyclopedia of the social sciences*, 9, 286-292.
14. Eryilmaz, A. (2009). Ergen öznel iyi oluş ölçeğinin geliştirilmesi. *Türk Eğitim Bilimleri Dergisi*, *7*(4), 975-989.
15. Eryılmaz, A. (2011). The relationship between adolescents' subjective well-being andpositive expectations towards future. *The Journal of Psychiatry and Neurological Sciences*, *24*, 209-215.
16. Eryılmaz, A. (2012). A model of subjective well-being for adolescents in high school. *Journal of Happiness Studies*, *13*(2), 275-289.
17. Eryılmaz, A. (2014). Üniversite öğrencileri için derse katılım ölçeklerinin geliştirilmesi.*Uşak Üniversitesi Sosyal Bilimler Dergisi*, 7 (2), 203-214.
18. Eryılmaz, A., & Ercan, L. (2014). Ergenler için ders çalışmaya motive olma ölçeğiningeliştirilmesi. *Başkent University Journal of Education*, *1*(1), 34-40.
19. Estacio, E. V. & Marks, D. F. (2005). Child labour and the International Labour Organization's Convention 182: a critical perspective. *Journal of health psychology*, 10(3), 475-484.
20. Fredricks, J. A.,Blumenfeld, P. C. & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of educational research*, 74(1), 59-109.
21. Fyfe, A. (1989) *Child Labour*. Cambridge: Polity Press.
22. Goulart, P. & Bedi, A. S. (2008). Child labour and educational success in Portugal. *Economics of Education Review*, 27(5), 575-587.
23. Heady, C. (2003). The effect of childlabor on learning achievement. *World Development*, 31(2), 385-398.
24. Hobbs, S. & Cornwell, D. (1986). Child labour: An underdevelopedtopic in psychology. *International Journal of Psychology*, *21*(1-4), 225-234.
25. Li, Y. & Lerner, R. M. (2011). Trajectories of school engagement during adolescence: implications forgrades, depression, delinquency, and substanceuse. *Developmental psychology*, 47(1), 233.
26. Martin, A. J. (2003). The Student Motivation Scale: Furthertesting of an instrument that measures school students' motivation. *Australian Journal of Education*, 47(1), 88-106.
27. Masten, A. S. (1994). Resilience in individual development: Successful adaptation despite risk and adversity. In M. C. Wang & E. W. Gordon (Eds.), *Educational resilience in inner-city America: Challenges and prospects* (pp. 3-25). Hillsdale, NJ, US: Lawrence Erlbaum Associates, Inc.

28. Masten, A. S. & Reed, M. J. (2002). Resilience in development. (Ed: C. R. Snyder ve S. J. Lopez) *The handbook of positive psychology* (pp. 74-88). Oxford University Press.
29. Ravallion, M. & Wodon, Q. (2000). Does child labour displace schooling? Evidence on behavioural responses to an enrollment subsidy. *The economic journal*, 110(462), 158 175.
30. Ray, R. (2000). Analysis of child labour in Peru and Pakistan: A comparative study. *Journal of population economics*, 13(1), 3-19.
31. Rossi, M. & Rosati, F. (2007). Impact of schoolquality on child labor and school attendance: The case of Conafe Compensatory Education Program in Mexico.
32. Santrock, J. W. (2006). Lifespan Developmental Psychology.
33. Skinner, E.Furrer, C., Marchand, G. & Kindermann, T. (2008). Engagementand disaffection in the classroom: Part of a larger motivational dynamic?.*Journal of educational psychology*, 100(4), 765.
34. Tagay, Ö. & Baltacı, H. Ş. (2017). Ergenlerde öznel iyi oluş ve zaman tutumu: Benlik saygısı ve iyimserliğin aracı rolü. *Pamukkale Üniversitesi Eğitim Fakültesi Dergisi*, 41(41), 131-144.
35. Uçan, A. & Esen, B. K. (2015). Ergenlerin Öznel İyi Oluşlarının Toplumsal Konum İle İlgili Risk Alma Değişkenine Göre İncelenmesi. *Mersin University Journal of the Faculty of Education*, 11(2), 288-299.
36. Walkerdine, V. (2005). Developmental psychology and the study of childhood. *Childhood: Critical Concepts in Sociology*, 3, 13-25.
37. Wigfield, A. (1994). Expectancy-value theory of achievement motivation: A developmental perspective. Educational Psychology Review, 6, 49-78.
38. Woodhead, M. (1999). Combatting child labour: listen to what the children say. *Childhood*, 6(1), 27-49.
39. Yılmaz, A. G. F., Göçen, A. G. S., & Yılmaz, F. (2012). Sokakta çalışan ve çalışmayan ilköğretim öğrencilerinin sosyal bilgiler programındaki değerlere ilişkin algıları/perceptions of primary school 5th grade students' who are the child labour and who aren't at the street towardsvalues in social studies studi. *E Uluslararası Eğitim Araştırmaları Dergisi*, 4(1), 82-99.

Investigating The Relationship Between Critical Thinking Skills and Mathematical Problem Solving Achievements of Secondary Education Students

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Abstract

In this research, it was aimed to determine the relationship between critical thinking skills and mathematical problem solving achievements of the secondary education students. Descriptive screening model was determined as the method of the research. The study group of the research included totally 429 students chosen randomly among the secondary education students studying at the 5th, 6th and 7th grades of state schools affiliated to Adana province Seyhan district National Education Directorate in 2018-2019 academic year. As data collection tools, "Critical Thinking Scale" developed by Görücü (2014) in accordance with the level of secondary education, and "Problem Solving Success Determination Test" developed by Kösece Loğoğlu (2016) were used. Data were analyzed in SPSS 22.0 statistical software. As a result of the analyses, it was determined that there was a positive significant relationship between "looking for the truth" and "communication" sub-dimensions of problem solving achievements and critical thing skills scale. In accordance with the results obtained from the study, considering the suggestions below was remarkable in terms of improving critical thinking skills and mathematical problem solving success of the secondary education students: The lessons should be lectured with activities related to getting the students acquire a critical point of view for solving the mathematical problems. The studies of establishing problems should also be carried out besides the studies of solving mathematical problems for the students. The teachers should primarily be individuals who can think critically for getting students acquire critical thinking skills, and necessary training should be provided for providing teachers to acquire this skill.

Keywords: Looking for the truth, analyzing, point of view, questioning.

Introduction

Societies have gradually added new information to the current one, and improved in the light of technological developments. Because our age is called information society, acquiring, analyzing knowledge and using it as required have become our fundamental vital skills. Our surrounding is full of information on ay areas, and our part is to analyze this information well. Because understanding the information accurately and using it in the right place is a fairly difficult skill. For this very reason, individuals who grasp the information from different viewpoints, approach critically and benefit from these skills efficiently while overcoming the problems have become critical for the societies.

According to Seferoğlu and Akbıyık (2006), requirements of modern world have required individuals to have thinking skills. In education, individuals who think, criticize, produce and know how to reach information have been tried to be raised. "The most important task schools have recently been expected to fulfill is to raise responsible citizens who can think in a democratic, creative, critical and multi-dimensional way, learn to learn, solve problems, who are respectful to others and tolerant of different ideas" (Aybek, 2006). The way for having these aforementioned skills is possible to be an individual who can question the information, look it from different viewpoints and adapt it into new situations instead of having it passively. All these skills directly indicate critical thinking. Because critical thinking enables individuals to accept information by questioning and making accurate decisions developing different viewpoints (Dutoğlu and Tuncel, 2008). The decisions taken in this sense are possible to be mentioned as providing conveniences for individuals on overcoming the problems.

According to Paul and Elder (2013), critical thinking is a way of thinking including three stages one within the other as analyzing the thought, evaluating the thought and developing the thought. Although critical thinking has different definitions, it is possible to mention that acquiring, comparing, evaluating and using the knowledge efficiently are emphasized in nearly all definitions (Aybek, 2007, P3). According to Nosich (2001), critical thinking has three parts. The first of these parts is critical thinking's including asking questions; the second is critical thinking's including trying to answering these questions through comprehending their logic; and the third part is critical thinking's including believing in outcomes of our logic (Aybek, 2015, 5-6). As could be seen here, the beginning point of all these three parts is asking a question. Namely, for starting a new process, creating questions is essential to see all dimensions of events and understand better. The subsequent is the stage of solving, and this is inter-bedded with the process of problem solving. According to Korkut (2002), problem solving is a process beyond simply employing the rules acquired at the end of experiences in order to overcome a

problem. Problem solving process necessitates finding new ways of solution. In this sense, it is necessary to benefit from critical thinking process while creating questions related to solution and looking for answers to these. The third stage of critical thinking is to reach logical results. Coming closer to a result and making a logical inference require critical thinking. According to Alkın Şahin and Tunca (2015), fuzzy thinking appears is the words are unspecific and inferences are not presented well. Fuzzy thinking can be considered as an obstacle for individuals' overcoming a problem.

No doubt, educational systems are the ones that are affected from the changes in thinking skills, and gradually reflecting this effect to whole society via the individuals. In our country, changes in skills to be acquired by the students have appeared through the constructivist approach in education. Including different skills in curriculums has necessitated lecturing the lessons in a way enabling the students acquire these skills. Problem solving and critical thinking skills are among these. Because these two skills and all other basic skills have a complementary quality. Accordingly, development of critical logic has become compulsory, and efforts towards supporting modern individuals for thinking critically to understand realities of the world in many ways have increased (Akar, Vural & Kutlu, 2004). Effects of these increasing efforts have become evident in researches on any areas of education.

In educational environments, problem solving as another skill that is closely associated with critical thinking and expected to be acquired by the students is frequently encountered by the individuals in both mathematical domains and life. In fact, individuals encounter with small or big problems in their daily lives even they are not aware of these. In daily works such as shopping, banking, etc., there are problems to be overcome, and problems do not disappear if the owner of the problem takes any action. The basis for such problems and the basis for mathematical four-operation problems are similar. The individuals use the same mental processes while solving a mathematical problem and a verbal problem. For that reason, the approaches acquired by the students while solving mathematics problems affect them during their whole life.

Kayan and Çakıroğlu (2008) mentioned that problem solving should be integrated in all educational grades and mathematical subjects in reform studies related to mathematic education. Because problem solving is available in any areas of life as mentioned above. Olkun and Toluk (2004, P44) defined problem as a case that encourages individuals to solve and that has no ready solving procedure but individuals can overcome using their knowledge and experiences. As could be understood from this definition, problem solving is a process that actualizes depending upon different points of view. Individuals' using their knowledge and experiences related to current problem indicates critical thinking skill.

Problem solving that leads a mark in this age is among the purposes of all courses. It should be known that teaching method of the 21st century is problem solving. For that reason, problem, structure of problem solving and increasing success in problem solving are the subjects that are studied by many researchers (Kılıç & Samancı, 2005). Mathematical problem solving processes that are both sub-dimension and basis of this subject are the ones that necessitate using a critical viewpoint, and a relationship between these two skills is considered to be present. Many studies have been carried out investigating the relationship between critical thinking and problem solving skills that includes overcoming the problems of daily life in different educational grades and professional groups (Koray et al., 2007; Cantürk, Günhan & Başer, 2009; Beşer & Kıssal, 2009; Choi, Lindquist & Song, 2014). A similar relationship is also considered to be present between mathematical problem solving and critical thinking skill. However, in the literature, it has been regarded that there are limited number of studies related to the presence and grade of such a relationship. For that reason, in this study, the relationship of mathematical problem solving skill with critical thinking skills was investigated in terms of various variables. This gap in the literature was tried to be filled with this research.

Purpose of the Research

In today's educational understanding, individuals who can integrate themselves into the society, think freely, looks from different perspectives, and produce creative ideas have become remarkable. Critical thinking that is the building stone for all these properties has become one of the most important skills every student should acquire. Because individuals who have critical thinking skill are the ones who can adapt into changing and developing world without experiencing difficulty in adaptation into differences. For that reason, organizing the educational environments in a way students can acquire this skill has become an obligation. The secondary education grade includes the period when students start to use different viewpoints while interpreting the events in terms of their developmental properties. Problem solving is one of these skills in different types. The basis of problem solving skill is laid in mathematical problem solving processes. Because individuals with mathematical problem solving skill can conclude problem solving process accurately approaching to the problems they encounter in real life scientifically. When the literature is analyzed, it is seen that the effects of various variables are examined in the studies the relationship between the critical thinking skills and problem solving achievements of secondary education students (Elliott, Oty, McArthur & Clark, 2001; Thompson, Martin, Richards & Branson, 2003; Son and Song, 2012; Peter, 2012). However, the number of studies that use mathematical problem solving skills in particular

was noteworthy. So, it was considered that the relationship between critical thinking skill and mathematical problem solving achievement should be revealed in terms of different variables. Therefore, in this study, it was aimed to determine the relationship between critical thinking skills and mathematical problem solving achievement of the students in secondary education grade. Within this framework, answers to the questions below were sought:

1. Does critical thinking skill score averages of secondary education students differ significantly according to their level of grade?
2. Does mathematical problem solving achievement score averages of secondary education students differ significantly according to their level of grade?
3. Does critical thinking skill score averages of the female and male students with different reading habit differ significantly?
4. Does mathematical problem solving achievement skill score averages of the female and male students with different reading habit differ significantly?
5. Is there a significant relationship between critical thinking skills (i.e. communication, looking for the truth, prejudice and self-confidence) and mathematical problem solving achievements of secondary education students?

Method

The research focused on gaining a general perspective on the subject of research by understanding the nature and characteristics of the events. This study carried out for determining the relationship between critical thinking skills and mathematical problem solving achievement of secondary education students, that was aimed to reveal the case as it was. Descriptive researches define the relevant case; it has the purpose of describing a current case in screening model (Karasar, 2008). Therefore, a descriptive correlational survey model has been determined as the method of the research. In the correlational survey model, it is aimed to determined the presence of co-variation between two and more variables (Bahtiyar and Can, 2016). Also it is aimed to reach a wide sample in accordance with the chosen method.

Sample

The population of this research included secondary education students. The sample used to represent the population included totally 429 students chosen randomly at the 5^{th}, 6^{th} and 7^{th} grades in state schools affiliated the Ministry of National Education in Seyhan district of Adana province in 2018-2019 academic year. Stratified sampling method was used while determining the sample. Stratified sampling guarantees sub-groups in the population to be represented in the sample (Balcı, 2007). With the determined stratified

sampling method, it was aimed to increase the representation of the universe. For this, the universe was initially divided into three layers according to the grade level, and then neutral samples from each layer were selected and united. 216 (50.3%) of secondary education students who participated into the study were female and 213 (49.7%) were male. The close numbers in terms of female and male students was remarkable in terms of increasing the reliability of analyses performed for gender variable. 180 (42.0%) of the students who participated into the study studied at the 5th grade, 72 (16.8%) studied at the 6th grade, and 177 (41.3%) studied at the 7th grade. 114 (26.6%) of the students who participated into the study read a book every day, 231 (53.8%) read twice a week, 66 (15.4%) read once a week, and 18 (4.2%) read at any times.

Data Collection Tools

In accordance with the research problem and sub-problems, "Critical Thinking Scale" developed by Görücü (2014) was used for measuring critical thinking skills of the 6th, 7th and 8th grade students. This scale was a 5-point Likert type, and included 17 items. The reliability obtained from whole scale was calculated to be 0.70 by Görücü (2014). The educational grade the scale included was noticed to be appropriate for the students in the sample of the research. Reliabilities of the dimensions in "Critical Thinking Scale" were reposted by Görücü (2014) (See, Table 1).

Table 1. *Dimensions of Critical Thinking Scale and Reliability of Dimensions*

Dimensions	**Name of Dimension**	**Number of Items**	**Items**	**Reliability**
1st Dimension	Communication	4	5, 6, 8, 17	.45
2nd Dimension	Looking for the truth	6	1, 3, 7, 10, 13, 14	.58
3rd Dimension	Self-Confidence	3	2, 12, 16	.66
4th Dimension	Prejudice	4	4, 9, 11, 15	.63

"Problem Solving Achievement Determining Test" developed by Kösece Loğoğlu (2016) in order to determine the mathematical problem solving achievement of the participants was used. This test included question types every student at any grades of the secondary education grade could answer. This test consists of 20 multiple choice items. Reliability coefficient for the Problem Solving Achievement Determining Test was calculated to be 0.80 by Kösece Loğoğlu (2016).

In addition to these two data collection tools, for determing the gender of students, level of grade and reading habits a personal information text is prepaired.

Data Analysis

SPSS 22 (Statistical Package for Social Sciences) statistical software was used to analyze the data obtained in the research. Percentage and frequency analyses were performed for determining the demographical distributions of the participants; two-factor ANOVA at $p<.05$ level of significance was used for specifying the transactional effect in multiple-group comparisons; T-Test and One-Way ANOVA were used for group comparisons; and Pearson correlation coefficients were analyzed to determine the relationship between critical thinking skills and mathematic achievement.

Findings

In this section, the results of the analyses performed for the sub-problems of the research were included.

The analysis results performed for the first sub-problem of the research as "Does critical thinking skill score averages of secondary education students differ significantly according to their level of grade?" were explained.

As result of the analyses, critical thinking skill score averages of the 7^{th} grade students was calculated to be $x=3.56$, critical thinking skill score averages of the 6^{th} grade students was calculated to be $x=3.76$, and critical thinking skill score averages of the 5^{th} grade students was calculated to be $x=3.65$. According to One-Way ANOVA test results, critical thinking skills of the 6^{th} grade students were determined to be higher, and this difference was significant $F(2,426)=5.66$, $P<.01$.

The analysis results performed for the second sub-problem of the research as "Does mathematical problem solving achievement score averages of secondary education students differ significantly according to their level of grade?" were explained.

As result of the analyses, mathematical problem solving achievement score averages of the 7^{th} grade students was calculated to be $\bar{x}=.58$, mathematical problem solving achievement score averages of the 6^{th} grade students was calculated to be $\bar{x}=.42$, and mathematical problem solving achievement score averages of the 5^{th} grade students was calculated to be $\bar{x}=.37$. According to One-Way ANOVA test results, there was a significant difference between mathematical problem solving achievement of secondary education students in terms of their level of grade $F(2,426)=74.56$, $P<.01$). Results of the Scheffe test performed to determine the source of difference in terms of level of grade were presented in Table 2.

Table 2. *Distribution Indicating Scheffe Test Comparison Related to Mathematics Problem Solving Achievement of Research Group According to the Variable of Grade*

	$\bar{x}$	**Grade Variables**	$\bar{x}$	**Mean Difference**	**p**
5th Grade	.37	6th Grade	.42	-.04	.104
		7th Grade	.58	-.21*	.0
6th Grade	.42	5th Grade	.37	.04	.104
		7th Grade	.58	-.16*	.0
7th Grade	.58	5th Grade	.37	.21*	.00
		6th Grade	.42	.16*	.0

According to Scheffe test results performed to determine the source of difference in terms of level of grade, 7th grade students ($\bar{x}$=.58) were noticed to be more successful rather than the 5th grade students ($\bar{x}$=.37) in terms of mathematical problem solving achievement.

The analysis results performed for the third sub-problem of the research as "Does critical thinking skill score averages of the female and male students with different reading habit differ significantly?" were presented below.

Table 3 indicated the descriptive statistics related to critical thinking skills of the female and male secondary education students with different reading habits.

Table 3. *Descriptive Values Related to Gender and Reading Habits of Secondary Education Students*

Gender / **Reading Habit**	**Female**			**Male**			**Total**		
	n	**$\bar{x}$**	**s**	**n**	**$\bar{x}$**	**s**	**n**	**$\bar{x}$**	**s**
Every day	72	3.76	.45	42	3.79	.41	114	3.78	.43
Twice a Week	114	3.61	.41	117	3.53	.45	231	3.57	.43
Once a Week	27	3.64	.42	39	3.62	.54	66	3.63	.49
Never	3	3.59	0	15	3.49	.52	18	3.5	.47
Total	216	3.67	.43	213	3.6	.47	429	3.63	.45

As could be seen in Table 5, reading habit in female students was analyzed to be highest in "*twice a week*" (n=114). Reading habit of the male students was determined to be highest in "*twice a week*" (n=117). The lowest value in reading habits of female and male students was in "*never*" choice.

After performing analyses related to normal distribution of the data, factorial ANOVA was performed for transactional-determination of the significant difference between critical thinking skill levels of female and male students in terms of reading habit, and the results were presented in Table 4.

Table 4. *Two-Way ANOVA Results Related to the Difference between Critical Thinking Skills of Female and Male Students with Different Reading Habits*

Source of Variance	Sum of Squares	Sd	Mean Squares	F	p	η
Gender (G)	.06	1	.06	.3	.58	.0
Reading Habit (R)	3.29	3	1.1	5.57	.00	.03
G*R	.26	3	.09	.44	.73	.0
Error	82.8	421	.2			
Total	5740.33	429				

According to 2x4 Two-Way ANOVA test results, as could be seen in Table 6, no significant difference was determined between critical thinking skill levels of the secondary education students in terms of their gender and reading habits. Moreover, no significant difference was also determined in common effect of gender and reading habit $F(3,421)=.44$, $p>.05$. When partial eta squared variable was analyzed, it was noticed that reading habit and gender and common effect of reading habit and gender had low effect upon critical thinking skill level (**η<.06).**

When the critical thinking skill score averages of female and male students were analyzed, skill score averages of female students ($\bar{x}=3.67$) were noticed to be slightly higher rather than skill score averages of the male students ($\bar{x}=3.6$). However, this difference was not at a significant level. Similarly, when critical thinking skill score averages of the students were analyzed according to reading habit, it was determined that skill score averages of the students who read books every day ($\bar{x}=.48$) were noticed to be significantly higher ($p<.05$).

The analysis results performed for the fourth sub-problem of the research as "Does mathematical problem solving achievement skill score

averages of the female and male students with different reading habit differ significantly?" were presented below.

Table 5 indicated the descriptive statistics related to mathematical problem solving achievements of the female and male secondary education students with different reading habits.

Table 5. *Descriptive Values Related to Gender and Reading Habits of Secondary Education Students*

Gender / **Reading Habit**	**Female**			**Male**			**Total**		
	n	**x̄**	**s**	**n**	**x̄**	**s**	**n**	**x̄**	**s**
Everyday	72	.46	.2	42	.54	.22	114	.49	.21
Twice a Week	114	.48	.22	117	.46	.18	231	.47	.2
Once a Week	27	.46	.17	39	.45	.13	66	.45	.15
Never	3	.2		15	.36	.11	18	.33	.12
Total	216	.47	.21	213	.47	.18	429	.47	.19

As could be seen in Table 5, reading habit was analyzed to be highest in "*twice a week*" choice in female students (n=114). In terms of male students, reading habit was noticed to be highest in "*twice a week*" choice (n=117). The choice of "*never*" was determined to be lowest in terms of reading habit in both female and male students.

After performing analyses related to normal distribution of the data, factorial ANOVA was performed for transactional-determination of the significant difference between mathematical problem solving achievement skill levels of female and male students in terms of reading habit, and the results were presented in Table 6.

Table 6. *Two-Way ANOVA Results Related to the Difference between Mathematics Problem Solving Achievement of Female and Male Students with Different Reading Habits*

Source of Variance	Sum of Squares	Sd	Mean Squares	F	p	η
Gender (G)	.09	1	.09	2.48	.12	.0
Reading Habit (R)	.47	3	.16	4.34	.005	.03
G*R	.25	3	.08	2.32	.08	.02
Error	15.29	421	.04			
Total	110.13	429				

According to Two-Way ANOVA test results, as could be seen in Table 6, no significant difference was determined between mathematical problem solving achievement skill levels of the secondary education students in terms of their gender and reading habits. Furthermore, no significant difference was also determined in common effect of gender and reading habit $F(3,421)=2.32$, $P>.05$.

When the mathematical problem solving achievement skill score averages of female and male students were analyzed, skill score averages of male students ($\bar{x}=.47$) were noticed to be slightly higher rather than skill score averages of the female students ($\bar{x}=.47$). However, this difference was not at a significant level. Similarly, when mathematical problem solving achievement skill score averages of the students were analyzed according to reading habit, it was determined that skill score averages of the students who read books every day ($\bar{x}=.48$) were noticed to be significantly higher ($p<.05$).

The analysis results performed for the fourth sub-problem of the research as "Is there a significant relationship between critical thinking skills and mathematical problem solving achievements of secondary education students?" were presented in Table 7.

Table 7. *Findings Related to the Relationship between Mathematics Problem Solving Achievement and Critical Thinking Skills Scale Sub-Factors*

	Looking for the Truth	**Communication**	**Self-Confidence**	**Prejudice**	**Mathematical problem solving achievement**
Looking for the Truth	r= .1				
Communication	r= .64*	r=1			
Self-Confidence	r= -.04	r=.08	r=1		
Prejudice	r= -.18*	r=-.03	r=.30*	r=1	
Mathematical problem solving achievement	r= .22*	r=.2*	r=-.28*	r=-.25*	r=1

*p<0.05

When the statistical data in Table 7 were analyzed, it was noticed that there was a positive significant relationship between "*looking for the truth*" (r=.22, p<.05) and "*communication*" (r=.2, p<.05) sub-dimensions of critical thinking skills scale; and there was a negative significant relationship between "self-confidence" (r=-.28, p<.05) and "prejudice" (r=-.25, p<.05) sub-dimensions.

Discussion, Conclusion and Recommendations

In this research, it was aimed to analyze the relationship between critical thinking skills and mathematical problem solving achievements of secondary education students, and to interpret these after analyzing in terms of various variables.

In accordance with obtained findings, critical thinking skills core averages of the 6th grade students were found to be significantly higher between the critical thinking skills and level of grade of the secondary education students. This could be arisen from the subjects in sixth grade students' curriculum's requiring to discuss the problems on real life basis while solving problems. In the study carried out by Akar (2007), it was reported that age had no determining effect upon critical thinking skill. This could be arisen from study group's including participants with closer grade levels and ages, accordingly. However, in this research, closer age groups necessitated analyzing the dimension of age in depth.

Another result obtained from the research was that mathematical problem solving achievement of secondary education students differed significantly in terms of "*level of grade*" variable. As result of the analyses, it was concluded that this difference was arisen from the fact that mathematical problem solving achievement scores of the 7th grade students were higher rather than the scores of 5th grade students. This was considered to be resulted from the structure of mathematic course. Mathematics has a spiral structure. The subjects in mathematics have a recurrent quality. For example, four-operation skill acquired in elementary education grade is encountered in secondary education, high school, university and even in any areas of life. For that reason, acquisition and using level of this skill increases as the age gets older. Because the skill of four-operation is correlational with mathematical problem solving achievement skill, obtaining such a result is expectable.

Furthermore, no significant difference was obtained between critical thinking skills and mathematical problem solving achievements of female and male students with different reading habits. Whereas the findings related to insignificant difference according to gender in terms of problem solving skills were parallel with the findings in the literature (Güven & Akyüz, 2001; Özkütük et al., 2003), these findings were inconsistent with the ones in the researches carried out by Koray and Azar (2008) and Korkut (2002). This difference could be arisen from the difference in study sample. Another result obtained from relevant sub-problem of the research was that gender created no difference in critical thinking skills. This finding was associated with the ones in the studies in the literature (Özdemir, 2005; Şen, 2009). On the other hand, these findings were inconsistent with the ones in the researches carried out by Walsh and Hardy (1999) and Neilsen (1984). Different reading habits had a significant effect upon critical thinking and mathematical problem solving achievement skill in favor of students who read books every day. Upon this result, students' reading qualified books, their reading books comprehendingly, or having extra reading hours to course hours were possible to be efficient. According to Tanju (2010), reading skill enabled all developmental areas including cognitive and oral development to improve. For that reason, it was possible to mention that students who acquired reading habit were more advantageous on thinking, problem solving and capability development.

In the research, there was a positive significant relationship between "*looking for the truth*" and "*communication*" sub-dimensions of critical thinking skills scale and mathematical problem solving achievement of secondary education students. And there was a negative significant relationship between "self-confidence" and "prejudice" sub-dimensions of critical thinking skills scale and mathematical problem solving achievement of secondary education students. When the literature was reviewed, it was

remarkable that there were limited number of studies investigating the relationship between critical thinking skills and mathematical problem solving achievement. The studies were mostly carried out on critical thinking and problem solving skill. Whereas no significant relationship was found between problem solving and critical thinking skills in the study carried out by Gürleyük (2008), a significant relationship was determined between critical thinking and problem solving in the study carried out by Tümkaya et al. (2009). In the literature, it was reported that critical thinking skill provided a basis for problem solving skill (Dil, 2001; Özdemir, 2005; Akar, 2007; Can et al., 2009). The result related to the relationship between some dimensions of critical thinking scale and mathematical problem solving achievement was consistent with the results in the literature.

In accordance with the results obtained from the study, regarding the suggestions below related to improving the critical thinking skills and mathematical problem solving achievements of secondary education students is remarkable:

1. The courses should be lectured with activities related to making students acquire a critical viewpoint while solving mathematics problems.
2. Students should be provided to create mathematic problems with real life context besides the mathematical problem solving studies. So that students can develop their skills establishing relationships between mathematic problems and real life problems.
3. Teachers should primarily be individuals who can think critically; therefore, in-service training activities should be organized for teachers to acquire critical thinking skills.

References:

1. Akar Vural, R., & Kutlu, O. (2004). Critical thinking: examination of measurement tools and a reliability study. *Çukurova Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 13*(2), 189-200.
2. Akar, C. (2007). *Critical thinking skills of elementary school students. Doctoral Dissertation.* Gazi Üniversitesi Eğitim Bilimleri Enstitüsü, Ankara.
3. Akar, Ü. (2007). *The relationship between student teachers' scientific process skills and critical thinking.* Master Thesis. Afyon Kocatepe Üniversitesi Sosyal Bilimler Enstitüsü, Afyon.
4. Alkın-Şahin, S., & Tunca, N. (2015). Philosophy and critical thinking. *Trakya Üniversitesi Eğitim Fakültesi Dergisi, 5*(2), 192-206.
5. Aybek, B. (2006). *The effect of content and skill based critical thinking teaching on prospective teachers'disposition and level in critical*

thinking. Doctoral Dissertation. Çukurova Üniversitesi Sosyal Bilimler Enstitüsü, Adana.

6. Aybek, B. (2007). The role of the teacher in teaching critical thinking. *Bilim, Eğitim ve Düşünce Dergisi, 7*(2).
7. Bahtiyar, A., & Can, B. (2016). An Investigation of Problem-Solving Skills of Preservice Science Teachers. *Educational Research and Reviews, 11*(23), 2108-2115.
8. Balcı, A. (2007). *Research in social sciences: Methods, techniques and principles*. Ankara: Pegem A Yayıncılık.
9. Beşer, A., & KISSAL, A. (2009). Critical thinking dispositions and problem solving skills among nursing students. *Dokuz Eylül Üniversitesi Hemşirelik Yüksekokulu Elektronik Dergisi,* 2(3), 88-94.
10. Can, H., Öner, Ö.İ. & Çelebi, E. (2009). Investigation of the effects of education on problem solving skills of university students. *Fırat Sağlık Hizmetleri Dergisi*, *4*(10), 35-58.
11. Cantürk-Günhan, B., & Başer, N. (2009). The effect of problem based learning on students' critical thinking skills. *Türk Eğitim Bilimleri Dergisi*, *7*(2), 451-482.
12. Choi, E., Lindquist, R., & Song, Y. (2014). Effects of problem-based learning vs. traditional lecture on Korean nursing students' critical thinking, problem-solving, and self-directed learning. *Nurse Education Today*, *34*(1), 52-56.
13. Dil, S. (2001). *The levels of critical thinking of Hacettepe University school of nursing students.* Master Thesis. Hacettepe Üniversitesi Sağlık Bilimleri Enstitüsü. Ankara.
14. Dutoğlu, G., & Tuncel, M. (2008). The relationship between candidate teachers' critical thinking tendecies and their emotional intelligence levels . *Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi*, 8(1), 11-32.
15. Elliott, B., Oty, K., McArthur, J., & Clark, B. (2001). The effect of an interdisciplinary algebra/science course on students' problem solving skills, critical thinking skills and attitudes towards mathematics. *International Journal of Mathematical Education in Science and Technology*, *32*(6), 811-816.
16. Görücü, E. (2014). *Investigation of relationship between the reading habits and critical thinking skills of sixth, seventh and eighth grade students.* Master Thesis. Yeditepe Üniversitesi, İstanbul.
17. Gürleyük, G.C. (2008). *The analysis of critical thinking disposition, problem solving abilities and academic achievement levels of primary school teacher candidates with respect to some variables.* Master Thesis. *Zonguldak Karaelmas Üniversitesi*, Zonguldak.

18. Güven, A. & Akyüz, M. Y. (2001). Pre-service teachers' views on communication and problem solving skills. *Ege Eğitim Dergisi, l*, 13-22.
19. Karasar, N.(2008). *Scientific research methods* Ankara: Nobel Yayın Dağıtım.
20. Kayan, F., & Çakıroğlu, E. (2008). Preservice elementary mathematics teachers' mathematical problem solving beliefs . *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, 35,* 218-226.
21. Kılıç, D., & Samancı, O. (2005). The usage of problem solving method in social knowledge lesson given in primary schools . *Kazım Karabekir Eğitim Fakültesi Dergisi, 11*, 100–112.
22. Koray, Ö., & Azar, A. (2008). An analysis of high school students' problem solving and logical thinking abilities in terms of gender and preferred field. *Kastamonu Eğitim Dergisi, 16*(1), 125-136.
23. Koray, Ö., Köksal, M. S., Özdemir, M., & Presley, A. İ. (2007). Effect of creative and critical thinking based science laboratory applications on academic achievement and scientific process skills . *İlköğretim Online*, *6*(3), 377-389.
24. Korkut, F. (2002). Problem solving skills of high school students. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, 22*, 177-184.
25. Kösece Loğoğlu, P. (2016). *The effect of mathematics instruction with activities based on Polya's problem solving method on fourth grade primary school students' success of the mathematical problem solving*. Master Thesis. *Mersin Üniversitesi,* Mersin.
26. Neilsen. M.E.(1984). Evaluation of a rural gifted program: Assesment of attitudes, self-concept and critical thinking skills of high-abilty students in grade 3 thtough 12. Unpublished PhD Dissertation, Purdue University.
27. Nosich, G.M. (2001/2015). *Learning to think things through; a guide to critical thinking across the curriculum,* (Çev. Birsel AYBEK). Ankara: Anı yayıncılık.
28. Olkun, S., & Toluk, Z. (2004). *Activity based mathematics teaching in primary education.* Ankara: Anı Yayıncılık.
29. Özdemir, S. M. (2005). Assessing university students' critical thinking skills for some variables. *Türk Eğitim Bilimleri Dergisi, 3*(3), 297-316.
30. Özkütük, N., Silkü, H.A., Orgun, F., & Yalçınkaya, M., (2003). Problem solving skills of prospective teachers. *Ege Eğitim Dergisi, 2*, 1-9.
31. Paul, R., & Elder, L. (2013). Critical thinking. (Çev. E. Aslan ve G. Sart). Nobel Yayıncılık, Ankara.

32. Peter, E. E. (2012). Critical thinking: Essence for teaching mathematics and mathematics problem solving skills. *African Journal of Mathematics and Computer Science Research, 5*(3), 39-43.
33. Seferoğlu, S. S., & Akbıyık, C. (2006). Teaching critical thinking. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, 30,* 193-200.
34. Şen, Ü. (2009). An evaluation about Turkish teacher candidates' critical thinking attitude's in terms of difference variable. *Zeitschrift Für Die Welt Der Türken/Journal of World of Turks, 1*(2), 69-89.
35. Son, Y. J., & Song, Y. A. (2012). Effects of simulation and problem-based learning courses on student critical thinking, problem solving abilities and learning. *The Journal of Korean Academic Society of Nursing Education*, *18*(1), 43-52.
36. Tanju, E. H. (2010). Book reading habit of children: A general Review. *Sosyal Politika Çalışmaları Dergisi*, *21*(21), 30-39.
37. Thompson, S. D., Martin, L., Richards, L., & Branson, D. (2003). Assessing critical thinking and problem solving using a web-based curriculum for students. *The Internet and Higher Education*, *6*(2), 185-191.
38. Tümkaya, S., Aybek. B. & Aldağ H. (2009). Investigating of critical thinking tendencies and problem solving skills of university students. *Eurasian Journal of Educational Research, 36,* 57-74.
39. Walsh, C.M., &Hardy, R.C. (1999). "Dispositional differences in critical thinking related to genderand academic major. *Journal of Nursing Education*, 38(4), 149-155.