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Relationships among Teachers' Justice and Cynicism Perceptions and Political Influence Behaviours of School Principals

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Abstract

Main purpose of this study is to examine the effects of teachers' organizational justice perceptions and the political behaviours used by school principals on teachers' organizational cynicism levels according to the opinions of primary school teachers. Sample of study, designed as a correlational study, consisted of 614 primary school teachers selected via cluster sampling method among 1948 primary school teachers. According to results, organizational cynicism levels of teachers are low. According to teachers' opinions, the most preferred political influence behaviours of school principals is idealized effect and the least one is pressure. Results show that organizational justice perceptions of teachers are high. Lastly, results of the study indicate that organizational justice perceptions of teachers and their opinions on the idealized effect and pressure behaviours used by school principals predict about %41 of their organizational cynicism levels. While organizational justice perceptions of teachers and idealized effect behaviour used by school principals predict organizational cynicism levels of teachers negatively, pressure behaviour used by school principals predicts it positively. With the scope of these results, some suggestions were made to decrease of organizational cynicism levels of teachers and for further researches.

Key words: Organizational cynicism, political behaviours, organizational justice perception, primary school teachers.

Introduction

Studies aiming effectiveness and productiveness of organizations try to examine the functional and un-functional behaviours of these individuals. These studies constituting the literature of organizational behaviour field not only try to enhance positive behaviours in the organization but also try to help developing strategies to prevent negative behaviours by identifying this kind of behaviours. One of these negative and harmful behaviours of members is organizational cynicism that has taken attention since 1980's in the organizational behaviour literature.

Examination of factors, which affect organizational cynicism positively or negatively, can help taking precautions to protect the organization. It is especially crucial to emphasize organizational cynicism for educational organizations since correcting the mistakes or deficiencies of their products is nearly impossible, basic inputs and outputs of them are people. Avoiding from negative consequences of organizational cynicism is only possible with minimizing the prevalence of organizational cynicism around the school environment. The first step of doing this is to define the antecedents of organizational cynicism. So, this study aims to identify some antecedents of organizational cynicism at educational organizations and contribute the effectiveness of these organizations.

In educational organizations, number of studies examining organizational cynicism has started to increase since 2000's. These studies have examined the relationships between organizational cynicism and such variables as school culture (Karadağ, Kılıçoğlu, & Yılmaz, 2014), job satisfaction (Arabacı, 2010), leadership behaviours (Polatcan & Titrek, 2014), professionalism (Altinkurt & Ekinci, 2016), organizational trust (Akin, 2015), and power sources of school principals (Altinkurt et al., 2014). Besides, one of the most commonly examined variables for the relationships with organizational cynicism is organizational justice both in general organization literature and specifically in the literature of educational organizations (Bernerth et al., 2007; Biswas & Kapil, 2017; Chrobot-Mason, 2003; Efeoğlu & İplik, 2011). Organizational justice perception is one of the variables examined in terms of its relationships with organizational cynicism in this study, too. Another variable examined in terms of its relationships with organizational cynicism in

this study is usage of political behaviours by school principals. Literature suggests that organizational politics is among the important determinants of organizational cynicism (Davis & Gardner, 2004). However, there are limited number of studies examining the relationships between organizational politics and organizational cynicism empirically (Bashir et al., 2011; Huang, Chuang, & Lin, 2003; Konaklı, 2016). Besides, number of studies examining the effects of organizational justice perceptions and organizational politics together on organizational cynicism is even less (Chiaburu et al, 2013; James, 2005). However, it is believed that identifying factors triggering organizational cynicism at educational organizations, which have a crucial role in shaping the future of society, is a necessity to decide which precautions should be taken.

Theoretical Framework

According to Dean, Brandes ve Dharwadkar (1996) cynicism studies could be based on five theoretical predecessors which also contribute to the conceptualization of organizational cynicism. These predecessors are classified as personality focus, occupational cynicism focus, societal/institutional focus, organizational change focus and employee cynicism focus. Among them, this study builds organizational cynicism concept's theoretical framework on employee cynicism focus. In employee cynicism focus, cynic behaviours are directed to organization in general, managers or principals of the organizational and the other people or things around the organization. This perspective makes it clear that cynicism of employees largely depends on the organizational and managerial processes and employees' perceptions about these processes. So, organizational cynicism in this study is based on mentioned employee cynicism focus and its antecedent are looked for among perceptions of teachers about organizational justice which is mostly shaped by school principals' treatments to them and political behaviours directed from school principals to them.

Organizational cynicism

The concept of organizational cynicism takes its roots from the concept of cynicism which is generally defined as believing that other people are dishonest, fraud, invaluable and selfish (Barefoot et al., 1989) or they are unreliable and politic (Graham, 1993 in Brandes, 1997). Cynicism has emerged as a philosophical worldview in Ancient Greek and has been used to characterize life styles of cynics since then (Brandes, 1997). Cynics have defended a virtuous life, full independence of people (Gokberk, 2005) and avoiding from pleasures of material life. Besides, they have underestimated and criticized public life and management (Weber, 1993). Examination of cynic behaviours of organization members has led the emergence of organizational cynicism concept in organizational behaviour literature.

Organizational cynicism is defined as harsh criticisms directed by members towards the organization explicitly or implicitly, and negative beliefs or emotions of them for the organization. Based on this definition, organizational cynicism has been examined under three dimensions which are cognitive, affective and behavioural cynicisms (Dean, Brandes, & Dharwadkar, 1998). *Cognitive dimension* contains negative beliefs of members about the organization. *Affective dimension* contains emotional reactions of individuals to the negative situations around the organization. *Behavioural dimension* contains negative actions of individuals around the organization (Dean, Brandes, & Dharwadkar, 1998). Such a thought which claims that organizational cynicism related with negative emotions, thoughts and behaviours could cause negative outcomes in terms of effectiveness and efficiency and could have negative impacts on members of the organization indicates the necessity of emphasizing organizational cynicism concept (James, 2005). When negative organizational consequences of organizational cynicism are considered, it can be said that, organizations likely try to take precautions against organizational cynicism and try to decrease organizational cynicism levels of members. However, to achieve this, it is a necessity to define antecedents of organizational cynicism or the factors increasing organizational cynicism levels of members.

Organizational cynicism is generally shaped by experiences of individuals and affected from attitudes and behaviours of others around the organization rather than being a personal characteristic (James, 2005; Johnson & O'Leary-Kelly, 2003). Studies also indicate that organizational cynicism does not only result from personal characteristics of individuals but also can be triggered by environmental factors and can change in time (Abraham, 2000; Dean, Brandes, & Dharwadkar, 1998; Johnson & O'Leary-Kelly, 2003). Abraham (2000) states that negative emotions and thoughts about the organization generally stem from the belief that the organization or members of the organizations lack of honesty, sincerity and fairness. Antecedent factors of organizational cynicism are examined under two titles which are personal and organizational

factors. However, studies focusing on the relationships between organizational cynicism and personal factors are few in number (James, 2005). Studies examining the factors effecting organizational cynicism mostly focus on organizational factors. One the most important reasons of this situation is the reality that organizations can take precautions for organizational factors.

Organizational justice

Organizational justice is one of the mostly emphasized concepts in organizational behaviour literature. This is due to the fact that an organization member with high level of organizational justice perception generally have positive attitudes towards the organization, her/his job and superiors (Moorman, 1991). Organizational justice concept is rooted from Adam's (1965) equity theory, Homan's (1961) distributive justice theory and Stouffer and colleagues' (1949) relative deprivation theory (Greenberg, 1990). According to equity theory, justice perception is shaped with the comparisons of individuals' her/his own inputs, outputs with others' inputs, and outputs (Bernerth et al., 2007). According to distributive justice theory, if costs of a group member's higher, they should be rewarded higher (Homans, 1958). Similarly, relative deprivation theory is also related with the perceptions of not getting the rewards an individual believes to deserve because of her/his comparisons (Cho, Lee, & Kim, 2014). These theories generally focus on the justice of outputs. However, researchers have focused on procedural and interactional dimension of organizational justice later on (Bernerth et al., 2007). So, organizational justice has been conceptualized as a variable which brings a new perspective to the field of organizational behaviour.

Organizational justice is not only about the outputs or rewards a person gets. It is also about the organizational processes and politics like promotion opportunities and interactions with managers and colleagues (Biswas & Kapil, 2016). So, organizational justice is conceptualized with three dimensions which are distributive justice, procedural justice and interactional justice (Colquitt, Greenberg, & Zapata-Phelan, 2005). *Distributive justice* is mostly related with outputs people get from the organization (Folger & Konovsky, 1989), especially economic gains (Cropanzano & Ambrose, 2001). Like indicated in equity theory, distributive justice perceptions are shaped by organization members' comparisons of their own inputs such as performance, effort, training etc. and outputs such as salaries, promotion etc. with others' these kinds of inputs and outputs (İçerli, 2010). *Procedural justice* is related with how decisions about the distribution of resources are made (Folger & Konovsky, 1989) and whether members participate in decision making processes about resource distributions (Greenberg, 1990). Unlike distributive justice, procedural justice focuses on socio-emotional gains. *Interactional justice* is related with the perceptions of organization member about the fairness of treatments they get from managers (Blakely, Andrews, & Moorman, 2005; Cropanzano, Bowen, & Gilliland, 2007).

Organizational justice basically consists of the perceptions of organization members on whether they have been treated fairly or not (Moorman, 1991). This indicates the subjectivity of organizational justice perception. Accordingly, it can be said that organizational justice is shaped by behaviours and attitudes of managers in organizations. Therefore, it is believed that organizational justice can be one of the important antecedents of organizational cynicism, which is affected from decisions, attitudes, implementations and interactions in the organization.

Political behaviour

Political behaviour is defined as a behaviour of an organization member to achieve individual goals by directing others regardless of ignoring organizational goals or not while exhibiting these behaviours which are generally not parts of her/his role in the organization (Farrel & Peterson, 1982; İslamoğlu & Börü, 2007). One of the most important conditions making a behaviour political is the intent of this behaviour (İşcan, 2005). Regardless of activeness or passiveness of the behaviour or whether it gives any harm, any behaviour which is exhibited to serve the own goals of a person or attempts to protect own interests of this person is called as political behaviour. Behaviour of an organization member who adjusts to opinions of colleagues even when s/he doesn't agree to gain advantages such as maintaining group membership and taking a share from group's profits can be called as a politic behaviour.

Studies examining the antecedents of political behaviours in organizations show that factors such as work environment, personal characteristics of organization members and particularly characteristics of organizational structure have impacts on usage of political behaviours (Bursalı, 2008; Ferris & Kacmar, 1992). These studies also indicate that specific factors such as centrality level of the organization, size of the organization, task and role ambiguity, roles and procedures are among the most important antecedents of political behaviour perceptions (Eisenhardt & Bourgeois, 1988; Miller, Rutherford, & Kolodinsky, 2008). Consequences of organizational politics, on the other hand, are generally related with job participation, organizational commitment, job satisfaction, organizational citizenship behaviour, organizational trust, organizational justice, organizational climate and culture (Çalışkan, 2006; Ertem, 2012; Ferris and Kacmar, 1992; Mehtap, 2011). Political behaviours are generally accepted as harmful for organizations. However, it is also stated that if these behaviours are used to meet both organizational goals and personal goals at maximum level, they can produce positive consequences, too (Mehtap, 2011).

Negativity or positivity of political behaviours could change according to type and frequency of political behaviours used in organization could affect the consequences of these behaviours and attitudes of members towards the organization (Karadal, 2008; Yukl, Falbe, & Youn, 1993). For example; while hard political behaviours as assertiveness, sanction, legitimating, blocking, or blaming others could result with negative consequences, soft political behaviours as rational persuasion, praising, inspiration, collaboration, consultation and personal appeal could result with positive consequences (Karadal, 2008; Kipnis & Schmidt, 1988; Yukl & Falbe, 1990).

Studies related to organizational politics generally examine the results of perceptions of organizational politics the effects of these perceptions on organizational behaviours. However, it is seen that number of studies examining the results of political behaviours is few in number. On the other hand, it is believed that examining the results of political behaviours and the effects of these behaviours on organizational behaviours and attitudes of members is crucial since these behaviours have impacts on perceptions of organizational politics, too. In this regard, it can be concluded that political behaviours are important factors shaping the attitudes and behaviours of members towards the organization and they can have impacts on organizational cynicism levels of members.

Purpose and questions of the study

Main purpose of this study is to examine the effects of teachers' organizational justice perceptions and opinions on political behaviours of school principals on their organizational cynicism levels. Based on this main purpose of the study, following research questions were posed:

- (1) What is the organizational cynicism level of teachers?
- (2) What are the opinions of teachers on political behaviours used by school principals?
- (3) What are the organizational justice perceptions of teachers?
- (4) Are organizational justice perceptions of teachers and political behaviours used by school principals statistically significant predictors of organizational cynicism levels of teachers?

Method

This quantitative research was designed with correlational research design. Correlational design is used to determine the co-change of two or more variables and the direction of this change (Creswell, 2021, p.21). Since this study aims to examine the relationships among of teachers' organizational justice perceptions, organizational cynicism levels and their opinions on political behaviours of school principals, correlational design is suitable for this study.

Sampling

The target population of the study consisted of 1948 teachers who work at primary schools affiliated with the Directorates of National Education in Tepebasi and Odunpazari in Eskisehir. While choosing the sample, cluster sampling method was used. Clusters in this study were determined as 44 schools in Tepebasi and 43 primary schools in Odunpazari. Accordingly, 25 primary schools from each cluster (Tepebasi and Odunpazari) were chosen and data collection tools were conducted to teachers. At the end of the data

collection process, it was determined to include 614 data collection tools into the analysis. The necessary sample size representing the population with a 95% confidence level was calculated as 321. So, it is decided that a sample of consisting of 614 primary school teachers is enough to represent the population. Demographic features of these teachers are presented in the Table 1.

Table 1. Demographic Features of Teachers

Variables		f	%
Gender	Male	168	27.3
	Female	444	72.1
Age (year)	21-30	38	6.2
	31-40	216	35.1
	41 and over	362	58.8
Educational level	Undergraduate degree	54	8.8
	Graduate degree	528	85.7
	Postgraduate degree	33	5.4
Seniority at school (years)	1-8	392	63.6
	9-16	136	22.1
	17 and over	88	14.3

Instrument

Data of the study were collected via “Personal Information Form”, “Organizational Cynicism Scale”, “Political Influence Tactics Scale” and “Organizational Justice Scale”. Personal information form consists of questions to identify gender, age, educational level and school seniority of teachers. Information related to scales are presented below:

Organizational Cynicism Scale: In the study, “Organizational Cynicism Scale”, a 13-item scale, developed by Brandes, Dharwadkar and Dean (1999) was used. The scale consists of three dimensions which are cognitive, affective and behavioural cynicism. The scale was adopted to Turkish by Kalağan (2009). Linguistic equivalence, exploratory factor analysis and confirmatory factor analysis were used to determine the validity of the scale. To determine the reliability, on the other hand, internal consistency coefficients were calculated. When the reliability of the adopted scale was examined, internal consistency coefficients (α) are calculated as .93 for total of the scale, .91, .95 and 87 for dimensions respectively. To decide the validity of three-dimensioned structure of adopted scale, confirmatory factor analysis was used. According to result of this analysis, fit indexes of the scale are found as $\chi^2=137,23$, $sd=61$, $p<.001$], $((\chi^2/sd)= 2.25$, $RMSEA=0.07$, $GFI=0.91$, $AGFI=0.87$ (Kalağan, 2009). However, for the sample of this study, reliability and validity of the scale were re-examined. Accordingly, internal consistency coefficients (α) were calculated as .95 for total of the scale, .91 for cognitive dimension, .81 for affective dimension and .95 for behavioural dimension. As a result of confirmatory factor analysis, fit indices were found as $(\chi^2/sd) =2.40$, $RMSEA=.087$, $CFI=.96$, $TLI=.95$, $SRMR=.057$ which are sufficient for good fit.

Political Influence Tactics Scale: In the study, “Political Influence Tactics Scale” originally developed by Yukl and Falbe (1990) and then revised by Berson and Sosik (2007) was used. Original scale had 44 items which define 11 political influence tactics. However, since this study examines the tactics directed from superiors to subordinates (from school principals to teachers), items related to tactics directed from subordinates to superiors were excluded and the scale form with 8 dimensions and 32 items was used. This was adopted to Turkish by Mehtap (2011). In this study, the scale form validity and reliability of which were re-examined by Author (2018) was preferred to use. After exploratory factor analysis, it was found that the scale consisted of 5 dimensions called as idealized effect, exchange, praise, legitimization and pressure and 30 items in the mentioned study. Internal consistency co-efficient values were calculated as .96, .95, .93, .86 and .83 respectively (Author, 2018). However, for the sample of this study, reliability and validity of the scale were re-examined. Accordingly, internal consistency coefficients (α) were calculated as .94, .94, .92, .83 and .83 respectively. As a result of confirmatory factor analysis, fit indices were found as $(\chi^2/sd) =2.30$, $RMSEA=.084$, $CFI=0.91$, $TLU=90$, $SRMR=.059$ which are sufficient for good fit.

Organizational Justice Scale: In this study, “Organizational Justice Scale” prepared by Niehoff and Moorman (1993) and originally consisting of 20 items was used. The scale has three dimensions called as distributive

justice, procedural justice and interactive justice. The scale was adopted to Turkish by Polat (2007) who also made the reliability and validity analysis of adopted scale form. After the exploratory factor analysis performed to determine the validity, a form with 19 items under 3 dimensions appeared. Internal consistency coefficients were calculated as .96 for total of the scale, .89 for distributive justice dimension, .95 for procedural justice dimension and .90 for interactional justice dimension (Polat, 2007). However, for the sample of this study, reliability and validity of the scale were re-examined. Internal consistency calculations to determine reliability and confirmatory factor analysis to determine validity were made. Accordingly, internal consistency coefficients (α) were calculated as .96 for total of the scale, .89, .94 and .90 for dimensions respectively. As a result of confirmatory factor analysis, fit indices were found as $(\chi^2/sd) = 2.31$, RMSEA=.084, CFI=.94 TLI=.92, SRMRS=.045 which are sufficient for good fit. So, it was decided that the scale is reliable and validate for the sample of this study.

Data Analysis

Distribution of data was examined with skewness and kurtosis coefficients. According to results of these normality test, it was decided that its distribution is normal. These results are presented in Table 2.

Table 3. Skewness and kurtosis values for research variables

Variable	No	Skewness	se	Kurtosis	Sd
Organizational Cynicism	614	.534	.099	.686	.197
Cognitive Cynicism	614	.571	.099	.432	.197
Behavioral Cynicism	614	.153	.099	-.437	.197
Affective Cynicism	614	.974	.099	.912	.197
Idealized Effect	614	-.291	.099	.464	.197
Legitimization	614	-.526	.099	.868	.197
Praise	614	-.502	.099	.115	.197
Exchange	614	-.244	.099	-.785	.197
Pressure	614	.126	.099	-.471	.197
Organizational Justice	614	-.299	.099	.267	.197
Interactive Justice	614	-.413	.099	.165	.197
Distributive Justice	614	-.317	.099	.166	1.97
Procedural Justice	614	-.363	.099	.237	1.97

As seen Table 2, all of the skewness and kurtosis values calculated for research variables between -1 and +1 which are the suggested cut points for data normality. In order to answer the first three sub-questions of the study, descriptive statistics were used. In order to answer the last sub-question of the study, multiple regression analysis was used. But, before doing that, assumptions of multiple regression analysis were examined. In this sense, Mahalanobis distance was calculated as 15.60 under the value of 16.27 suggested for regression model with 3 independent variables (Pallant, 2007). In order to eliminate singularity assumption of regression analysis, correlation coefficients between variables were calculated. Since all correlation coefficients were under .70 suggested like by Pallant (2007), it was decided that singularity assumption was met. Then, to see whether there is multi-collinearity among independent variables, tolerance and VIF values were examined. It is suggested to be over .02 for tolerance value and under 10 for VIF value to avoid multi-collinearity (Myers, 1990, in Field, 2009). In the regression model of this study, the highest VIF value was calculated as 1.44 and the lowest tolerance value was calculated as .69. Lastly Durbin-Watson value which is suggested to be between 1 and 3 (Field, 2009) was found as 1.77.

Findings

Firstly, minimum scores, maximum scores, means and standard deviations related to research variables were calculated as descriptive statistics. Related findings are presented in Table 3.

Table 3. Descriptive Statistics for Teachers’ Perceptions on Organizational Cynicism, Organizational Justice and Their Opinions on Political Behaviors of School Principals

Variable	N	Item No	Min.	Max.	\bar{X} /Item Number	sd/Item number
Organizational Cynicism	614	13	13.00	57.00	1.98	0.59
Cognitive Cynicism	614	5	5.00	22.00	2.14	0.73
Behavioral Cynicism	614	4	4.00	18.00	2.12	0.69
Affective Cynicism	614	4	4.00	17.00	1.64	0.68
Idealized Effect	614	14	34.00	70.00	4.03	0.51
Legitimization	614	4	4.00	20.00	3.78	0.66
Praise	614	4	4.00	20.00	3.69	0.78
Exchange	614	4	4.00	20.00	3.06	1.08
Pressure	614	4	4.00	20.00	2.70	0.93
Organizational Justice	614	19	40.00	95.00	4.04	0.57
Interactive Justice	614	4	8.00	20.00	4.20	0.62
Distributive Justice	614	6	12.00	30.00	4.03	0.61
Procedural Justice	614	9	17.00	45.00	3.97	0.63

The first sub-question of the study is “What is the organizational cynicism level of teachers?”. Analysis showed that teachers’ answers to these items are in “Disagree” (\bar{x} =1.98, sd =.59) category. So, it is concluded that organizational cynicism level of teachers is low. Results also indicate that cognitive cynicism level (\bar{x} =2.14, sd =.73), behavioral cynicism level (\bar{x} =2.12, sd =.69) and affective cynicism level (\bar{x} =1.64, sd =.68) of teachers are low, too. These results show that the lowest level organizational cynicism dimension is affective cynicism. Teachers’ answers on this dimension is in the category of “Strongly disagree”.

The second sub-question of the study is “What are the opinions of teachers on political behaviours used by school principals? Analysis showed that teachers’ answers to these items show that the most frequently used political behaviour by school principals is idealized effect (\bar{x} =4.03, sd =.51). After idealized effect, school principals use legitimization (\bar{x} =3.78, sd =.66) and praise (\bar{x} =3.69, sd =.78) behaviours frequently according to teachers’ opinions. Answers of teachers for these three behaviours are in the category of “Agree”. On the other hand, answers given to items of exchange (\bar{x} =3.06, sd =1.08) and pressure (\bar{x} =2.70, sd =.93) behaviours are in the category of “Neither agree nor disagree”. So, it was determined that teachers think that the least frequently used political behaviour by school principals is pressure.

The third sub-question of the study is “What are the organizational justice perceptions of teachers?”. Analysis showed that teachers’ answers to these items were in “Agree” (\bar{x} =4.04, sd =.57) category. So, it was concluded that organizational justice level of teachers was high. When the answers given to scale were examined for dimensions of organizational justice it was seen that teachers’ perception of interactive justice (\bar{x} =4.20, sd =.62), distributive justice (\bar{x} =4.03, sd =.61) and procedural justice (\bar{x} =3.97, sd =.63) were high, too. Arithmetic means of these three dimensions were in the category of “Agree”.

The last sub-question of the study is “Are organizational justice perceptions of teachers and political behaviours used by school principals statistically significant predictors of organizational cynicism levels of teachers?” To answer this question firstly correlation coefficients showing the relationships between variables were calculated and it was found that there were statistically significant relationships at low and medium levels between organizational cynicism and organizational justice (-.56), idealized effect (-.48), pressure (.34), praise (-.31) and legitimization (-.23). However, it was also found that there was not a statistically significant relationship between organizational cynicism and so, exchange behaviour was not included in regression analysis. While applying hierarchical regression analysis, independent variables were put in analysis according to their relationship levels with organizational cynicism from highest level to lowest level. The analysis showed that contributions of praise (t =.35, p >.05) and legitimization (t =1.42, p >.05) which were put in analysis lastly were not statistically significant. So, the regression model used for results included organizational justice, idealized effect and pressure. Hierarchical regression analysis results are presented in Table 4.

Table 4. Hierarchical Regression Analysis Results

Model	Variables	B	SH _B	β	t	p	R ²	ΔR ²	F	p
Model 1*	Justice	-.394	.024	-.556	-16.56	.000	.31	.31	274.40	.000
Model 2*	Justice	-.300	.028	-.423	-10.89	.000	.35	.35	39.49	.000
	Idealized effect	-.262	.042	-.244	-6.28	.000				
Model 3*	Justice	-.275	.026	-.388	-10.44	.000	.42	.41	68.20	.000
	Idealized effect	-.254	.040	-.236	-6.40	.000				
	Pressure	.531	.064	.259	8.26	.000				

*Dependent variable is organizational cynicism.

When hierarchical regression analysis results are examined in Table 4, it is seen that the first model includes only organizational justice as independent variable. Accordingly, teachers' organizational justice perceptions predict about 31% ($\Delta R^2=.31$) of their organizational cynicism levels statistically significantly. It is also seen that this prediction of organizational justice perceptions on organizational cynicism is negative, this means that as organizational justice perceptions of teachers increase their organizational cynicism levels decrease. In the second model, idealized effect behaviour of school principals was added in analysis as independent variable. This model shows that organizational justice perceptions and idealized effect behaviour predict about 35% ($\Delta R^2=.35$) of teachers' organizational cynicism levels together. Also, it is seen that prediction of idealized effect on organizational cynicism is negative. In the last model, organizational justice, idealized effect and pressure were added in analysis as independent variables. These variables predict about 41% ($\Delta R^2=.41$) of teachers' organizational cynicism levels together. However, usage of pressure behaviour by school principals predict teachers' organizational cynicism levels positively unlike other two variables.

Results, Conclusions and Recommendations

Results related to organizational cynicism levels of primary school teachers show that organizational cynicism are low. This result indicates that teachers have not negative beliefs and criticisms for the schools they work and they find their both the school and the school management fair and honest. Other studies conducted with teachers in Turkey also show that teachers' organizational cynicism levels are low (Akın, 2015; Korkut, 2019; Yıldız, 2013). Also, most of the studies examining organizational cynicism of teachers point out that teachers' affective cynicism levels are lower than other dimensions similar to this study's findings (Karadağ, Kılıçoğlu, & Yılmaz, 2014; Özcan, 2014; Yıldız, 2013). Studies conducted in different countries have similar results for organizational cynicism levels of teachers, too (James, Miles, & Mullins, 2011; Salanova et al., 2005; Simbula & Guglielmi, 2010). These results imply that teachers trust their schools, school principals and colleagues and have positive emotions and behaviours towards them. The facts that teaching profession is prized in Turkish society and is an affectively fulfilling profession can be among the reasons why teachers' organizational cynicism levels are low. Besides, because of the centrality of Turkish educational system, many of the decisions are made at ministerial level and are implemented throughout the country. These also can be the reasons why teachers do not blame their schools for these decisions or implementations. The result of the study pointing the lowness of teachers' organizational cynicism levels can be interpreted as a highly positive situation in terms of teachers' contributions to the school goals and the future of the society.

Results indicate that the most frequently preferred political behaviour by school principals is idealized effect among political behaviours examined in this study. Idealized effect includes some influence tactics such as persuading others rationally, encouraging others to participate in decision making processes and taking others' needs and desires in consideration (Kipnis & Schmidt, 1988; Yukl, Falbe, & Youn 1993). These tactics are called as rational persuasion, consultation, inspiration and collaboration under the title of soft political influence behaviours (Yukl & Tracey, 1992). On the other hand, results of the study indicate that the least frequently preferred political behaviour by school principals is pressure. While using this behaviour, people generally take actions such as insisting, threatening or controlling others tightly (Falbe & Yukl, 1992). Most of the studies related to political behaviours of school principals have similar results

with this study. Teachers generally think that their principals prefer soft political influence behaviours such as rational persuasion, consultation, collaboration, inspiration rather than hard ones such as making pressure (Aydın & Pehlivan, 2010; Güleş, 2016; Somech & Drach-Zahavy, 2002). While evaluating these results, it is possible to consider such factors that hierarchical bounds between the school principal and the teacher are loose and power distance is low. So, it is an expected result that school principals prefer soft political behaviours to direct teachers who are generally have similar educational degrees and similar expertise with the principals and they have autonomy in their classes. Also, preferring pressure could be so ineffective at schools like any other organization in which members are professionals. When these conditions are considered, the results indicating that school principals generally prefer to use idealized effect and avoid using pressure are highly expected ones.

Results related to organizational justice perceptions of teachers indicate that their organizational justice perceptions are high. Other similar studies also have shown that organizational justice perceptions of teachers are generally high (Baş & Şentürk, 2011; Dipaola & Guy, 2009; Malik & Naeem, 2011; Zeinabadi & Salehi, 2011). So, it is possible to interpret that teachers see managerial processes, behaviours of their principals and the outcomes they have in change of their efforts fair. When the dimensions of organizational justice considered, it is seen that interactive justice perceptions of teachers are higher. Other studies in the literature also indicate that interactive justice perceptions of teachers are higher than other dimensions (Althayney, Khasawneh, & Abedalhafiz, 2014; Babaoğlan & Ertürk, 2013; Polat & Kazak, 2014). This result of the study can be related to the fact that teaching profession constitutes the baseline of educational systems, it is the heart of schools. This also implies that being a school principal does not necessitate any further training and expertise other than being a teacher. So, it can be concluded that teachers do not perceive a distance between themselves and school principals which can create a communication barrier or a diversity in their worldviews. So, it is likely that their interactions include respect. Since their communication is generally open with principals, teachers can demand fair resource distribution or active participation in decision making processes.

Results of hierarchical regression analysis show organizational justice perceptions of teachers and usage of idealized effect and pressure behaviours by school principals are among statistically significant predictors of organizational cynicism levels of teachers. While idealized effect and organizational justice predict organizational cynicism negatively, pressure predicts organizational cynicism positively. Many studies in the literature also show that organizational justice is among the most important predictors of organizational cynicism (Bernerth et al., 2007; Chrobot-Mason, 2003; Köybaşı & Uğurlu, 2017; Özgen & Turunç, 2017). Since organizational cynicism is an employee attitude mostly shaped by organizational and managerial processes (Abraham, 2000), increase in organizational cynicism levels of teachers who think their organizational or principal is not fair can be accepted as natural result.

Impacts of micro-politics in organizations on employees' organizational cynicism levels are generally examined in the context of organizational politics perceptions in the literature. Some studies have results indicating that employees who find their organizations' politization level high, generally have high organizational cynicism levels, too. Therefore, organizational politics is accepted as an important antecedent of organizational cynicism (Al-Abrrow, 2018; Chiaburu et al., 2013; James, 2005). Results of this study also show that idealized effect is a negative predictor of organizational cynicism and pressure is a positive predictor of it. These results make explicit the responsibility of school principals in preventing organizational cynicism which influences effectiveness and development of schools badly. There are similar study results which show the effects of hard and soft principal behaviours on organizational cynicism. For example; there are such studies as indicating democratic leadership which includes participatory decision-making processes and ethical leadership which includes treating all organization member equally, fairly and honestly predict organizational cynicism negatively (İnce, 2018; Mete, 2013). Also, there exist positive relationships between coercive power of school principals and organizational cynicism levels of teachers (Altinkurt et al., 2014). Besides, some studies which examine organizational politics and organizational justice perceptions together as predictors of organizational cynicism like this study also assert that organizational cynicism is influenced from organizational processes mostly (Chiaburu et al., 2013; James, 2005). When the results of this study and other related studies in in the literature are considered, it is possible to say that communication between teachers and school principals is valued by teachers in a great extent and quality of this communication shape their perspectives towards the school. Expertise of teachers in their fields can be accepted as an important indicator of the fact that they cannot be effectively directed by giving orders or making pressure. Since teachers have a great control over their classes, it is possible that most of them feel themselves as owner of decisions and authority. So, it is crucial for school principals to appreciate teachers' expertise, value and respect them and evaluate their performance appropriately. By doing so, school principals would prefer behaviours included in idealized effect more rather than pressure

and they would contribute in increase of organizational justice perceptions of teachers and so they would be able to prevent organizational cynicism among teachers.

Based on the results of this study some suggestions could be done for researchers and practitioners. Accordingly, it could be suggested that school principals should behave fairly while distributing resources, communicating with teachers and applying the rules to decrease organizational cynicism levels of teachers. Besides, when the current mechanism of Turkish educational system in which school principals and teachers have similar educational and expertise levels is considered, it could be suggested that school principals should prefer soft influence behaviours rather than making pressure while directing teachers. In this regard, it is believed assigning school principals who can use reference power more effectively, can change teachers' behaviours by inspiring them is a necessity. Also, these qualifications should be taken into consideration while training them. Lastly, it could be suggested that studies, supported semi-structured interviews, tending to examine the political behaviours of school political behaviours which contribute to decrease to decrease organizational cynicism levels of teachers should be conducted.

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Collaborative Leadership in the School Community: School Counselors and Principals Join Forces for Linguistically Diverse Students

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Abstract

The numbers of diverse students are increasing within the school system, demanding necessary changes in school leadership to meet the needs of students from linguistically diverse backgrounds. School counselors not only work as leaders, advocates but also as “collaborative team members and supporters of systemic change” (Aydin, 2011, p. 36). Through this renewed leadership between school counselors and principals, it becomes possible to develop a type of working alliance to meet the needs of students from linguistically diverse backgrounds. With this review the author aims to discuss the ways to create a collaborative partnership between school counselors and principals for linguistically diverse students in order to promote their social integration, school achievement and overall well-being. Exploring school counselors’ and principals role in creating a welcoming school climate towards linguistically diverse students within the school and school community can promote positive organizational culture. Accordingly, the following topics will be explored and discussed: a) principals influence on school achievement through facilitating a collaborative climate and b) how school counselors facilitate leadership as change agents. Both school principals and school counselors work towards achieving similar goals; thus they can facilitate more collaborative leadership as they reach out to the school community. Using a systemic approach, which generates greater understanding and awareness, school counselors and principles play a critical role in the transformation of their school system. When school counselors and principals join forces, students from linguistically diverse backgrounds learn and achieve better. A collaborative school climate is critical in order to develop a positive organizational school culture, which generates motivations for greater connection among the stakeholders.

Key words: school counselor leadership role, collaborative school climate, principal support

Introduction

The number of non-native speaking students in the American K-12 school system has increased significantly (Araujo, 2009; U.S. Department of Education, 2019, 2020; Fix and Capps, 2005) and is projected to increase by 25% in 2026 (2002). The number of migrant students is also increasing in the Turkish school system (International Refugee Rights Association Report, 2017). These changing demographics require innovative approaches to school leadership as school counselors and principals collaborate for linguistically diverse students. The purpose of this literature review is to discuss the importance of creating a collaborative partnership among school stakeholders, specifically referring to school counselors and principals useful for linguistically diverse students. When school counselors and principals join forces for linguistically diverse students, they promote their students’ social integration, school achievement and overall well-being (Aydin, 2011; Yildiz, 2021).

According to UNCHR (2017), a total of 5 million 380 thousand Syrian citizens have been forced to evacuate from their native country since 2011; and just about 2 million 555 thousand of these migrants consist of children (47.5%). It is evident that this is not only a migration problem but also a major issue concerning the education of refugee children. While the numbers of diverse students have been increasing in the public school system in Turkey, how to effectively promote a school leadership to meet the needs of students from linguistically diverse backgrounds is not thoroughly explored in research (Allensworth &

Hart, 2018; Sağlam and İlksen-Kanbur, 2017). The main purpose of this review is to address the abovementioned gap through unfolding ways for this working alliance as school counselors and principals join forces to create influential leadership dynamics that promote students' school success.

The issues of students with different native languages are complex due to their language problems, cultural adaptation, migration and war-related trauma experiences. As a group with special needs, school counselors have important duties in working with refugee and immigrant students. In order for school counselors to fulfill these tasks effectively, they must have competence in assisting the cultural adaptation process, multicultural counseling, and the trauma process. According to the reports of the United Nations, more than half of the population of Syria (13.5 million people) had to leave their country and take refuge in neighboring countries. Half of those who migrated to other countries are children between the ages of 0-15. Approximately 1 million people lost their lives and 2 million people were injured in the Syrian civil war (International Refugee Rights Association Report, 2017). However, while 7 million Syrians took asylum within the country, 6.5 million Syrians were forced to seek asylum in other countries. Additionally, it is estimated that more people are victims of the Syrian civil war than are known by official statistics. Immigration Administration General Directorate of the Ministry of Interior (2018) official statistics indicates that the war has been ongoing for 8 years, resulting in 3.6 million Syrians' seeking refuge in Turkey. Syrian refugee children who are victims of war are especially in need of professional help to overcome the adverse effects of both their traumatic life events and to adapt to their new life conditions (Machel, 2001; Akdeniz, 2018).

School counselors have a leadership role within their school community as they act to utilize multiple system of support transforming their schools on behalf of their students' needs. Numerous projects geared toward refugee students are managed by the Ministry of National Education conducted by a collaborative team of school professionals including school counselors as systemic change agents. When the comprehensive curriculum program issued by the Ministry of National Education during the academic year of 2014-2015 resulted an increased access to education nearly five times more compared to the previous year. During the academic year of 2015-2016 after implementing curriculum, nearly 40% more Syrian refugees were observed to have an access to education (Ateşok, 2018).

A collaborative school climate is essential for developing a positive organizational culture, which creates motives for greater connection within the stakeholders (Hutchins, Greenfeld, Epstein, Sanders, & Galindo, 2012). They facilitate social and emotional learning in building effective schools. When they work with their principals in creating partnerships, they both influence school achievement through facilitating a collaborative school climate (Aydin, 2011). Specifically focusing on the role of principals, the following section will include discussions on the following topics a) transformative leadership that facilitates collaborative school climate; b) principals influence school achievement through the school climate they cultivate; and c) cross-boundary leaders work with students and their families to connect them with the opportunities and also support them within the school community.

According to the previous research there was a significant positive relationship between school principals' expectations and school counselor involvement in school-family partnerships (i.e., school-community collaboration, inter-professional collaboration and overall involvement) (Aydin, 2011; Bryan & Holcomb-McCoy, 2004, 2007). In Bryan and Griffin's (2010) study, school principals' expectations were not related to inter-professional collaboration. Focusing on linguistically diverse families, Aydin's study examined school counselor involvement in the inter-professional collaboration. Findings highlighted the complexity of school, family and community partnerships with linguistically diverse families which are also acknowledged by school counselors. Moreover, school principals' expectations predicted involvement in the regression model (Aydin, 2011). Whenever school counselors and principals collaborate, it benefits linguistically diverse students' wellbeing and school achievement (Aydin, 2011, Yildiz, 2021).

Concerning relevant definition related to the topic as follows: School counselors are licensed professionals whose roles and functions involves in assisting students succeed better academically and also assist students in personal, social and career related matters (ASCA, 2008). Linguistically diverse students are those who speak languages other than English. English Language Learners refers to those students with lower performances in reading and writing with their classmates (NCLB, 2001). As a variable Principal Support is an important that have an effect on school counselor involvement in school, family and community partnerships (Pérusse, Goodnough, Donegan, & Jones, 2004).

1. Principals Influence School Achievement through Facilitating Collaborative Climate

When school principals are supportive of their school community they vicariously facilitate student achievement. Principal support is an important variable, which influences school counselor' involvement

in partnerships; thus, encouraging school counselors to be more engaged in leadership roles and helping creating a collaborative climate within their school system (Chata & Loesch 2007; Leuwerke, Walker, & Shi, 2009; Pérusse, Goodnough, Donegan, & Jones, 2004; Sanders & Harvey, 2002). Just as each stakeholder has a personal perception of the school counselor's role within the school, the principal may have a personal vision of how school counselors could be most effective within the school community (Culbreth, Scarborough, Banks-Johnson, & Solomon, 2005). While school districts and school administrators face meeting students' massive needs and accountability demands, they do not always recognize how the professional role description and training prepares school counselors to respond to social, emotional and career related needs of their students (Adelman & Taylor, 2002).

In a qualitative study, Amatea and Clark (2005) interviewed 26 school administrators regarding their perceptions on school counselor's role. One fourth of the principals asserted that they viewed the school counselor as their team members in the school administration, who perform administrative tasks as a subordinate rather than a professional. Counselor education programs can provide better opportunities for school counseling students by training them "(a) to view themselves as having a unique skill set needed by the school as a whole, (b) to deliver those skills, and (c) to function as a member of a team of school leaders" (Amatea & Clark, 2005, p. 25). Furthermore, Janson, Militello, and Kosine (2008) examined perceived professional relationships of school counselors and principals. Using Q methodology to develop 45 opinion statements with 39 professional school counselors and principals about their relationship, four factors emerged. Three of them involved constructive attributes of the school counselor-principal relationship; one factor emphasized interpersonal collaboration. Learning how to influence other school members' expectations is essential. To do this, training programs can foster systemic thinking in relation to school counselors' roles as part of a larger system, which is reciprocally structured and restructured.

Kirchner and Setchfield (2005) assessed the perceptions of school counselors and administrators who had an academic training that focused on understanding of each other's roles. School principals were inclined to accept statements inconsistent with the school counselors' roles. While some literature indicates that school principals advanced their knowledge of school counseling programs through training and research, many principals' perceptions about the school counselors' roles are developed by their own experiences (Coy, 1999). Attaining knowledge related to the operation of school counseling programs with regards to school counselors' roles are not always required during school administration training (Fitch, Newby, Ballesteros, & Marshall, 2001). Therefore school counseling programs are often formed based on minimal education or based on previous experiences (Seashore, Jones, & Barajas, 2001). It is not always clear what involves the appropriate roles, which can be a concern for partnership practices.

When school counselors serve as liaisons in the school community (Davis, 2005), the principal's support in creating a collaborative school climate becomes critical. In Aydin, Bryan, and Duys's (2012) study, 95 school counselors were asked about their involvement in school, family and community partnerships of working with linguistically diverse families. School counselor perceptions about linguistically diverse families and perceptions of the school principal were significantly correlated, $r = .45$; $p < .01$. More favorable perceptions of the principal were associated with positive attitudes toward linguistically diverse families. Perceptions of partnerships with linguistically diverse families and perceptions of the school principal were also significantly correlated, $r = .51$; $p < .01$. When school counselors had more favorable perceptions of their principals, they were more inclined to hold positive attitudes toward partnerships with linguistically diverse families. Both perceptions about school climate and the school principal were significantly correlated, $r = .72$; $p < .01$. When school counselors hold more favorable perceptions of their principal they tend to hold positive perceptions about the school climate.

School counselor and school administrators have separate roles and responsibilities. However, the common goals they share complement each other specifically to ensure what is best for their students. Overlapping roles and responsibilities assure that they join their forces for the benefit of their students and the school community. Any activity not directly related to instruction is viewed by school principals and policy makers to be taking resources away since they believe schools' primary mission is teaching (Adelman & Taylor, p. 236), thus, creating challenges for school, family and community partnerships. If school counselors and principals join together for leadership and advocacy, this can have a positive influence for a school's mission, climate, and students' capacity to achieve academic success (Stone & Clark, 2001). Principals' expectations in creating a collaborative school climate are critical. Written comments that school counselors offered persistently accentuated the importance of principal expectation as an important predictor for their collaborative partnerships in the school community (Aydin, 2011; Bryan & Holcomb-McCoy, 2004, 2006; Bryan & Griffin, 2010).

The importance of principal expectations on school counselors' role and school, family and community partnership activities is acknowledged in the literature (Aydin, 2011; Amatea & Clark, 2005; Finkelstein, 2009; Janson, Militello, & Kosine 2008; Kirchner & Setchfield, 2005). Previous research pointed that

principal expectation was related to school counselors' involvement in partnerships (Bryan & Griffin, 2010). In addition, principal expectations appeared to predict school counselors' involvement in several dimensions: school-home partnerships, school-community collaboration, and overall partnership involvement, except involvement on collaborative teams. School counselors reported a moderate level of involvement on all three dimensions as well as overall involvement. Principal expectations were the strongest predictor of these types of partnership involvements (Bryan & Griffin, 2010).

The above mentioned reasons underline the importance of principal expectations as a significant variable that predict school counselors' involvement in school, family and community partnerships with linguistically diverse families. Studies highlight that principals' expectations were related to school counselors' involvement in partnerships. Of interest is whether school counselor involvement in school, family and community partnerships with linguistically diverse families relates to principal expectations using a nationally representative sample of participants (Aydin, 2011; Yildiz, 2021).

1.1. Transformative leadership facilitates collaborative school climate

Leadership in the school context embodies collaborative efforts of educators holding shared goals of student attainment. In this context, leadership is a mindset which affects the way a school counselor approaches work related interactions with staff and the perceived influence (Mason, 2008). Stone and Dahir (2006) suggest that school counselor leadership has a bearing on positive student outcomes: "The leadership mindset means that the school counselor, along with colleagues who embrace leadership, views his or her position in the school as critical in supporting indicators of student success . . ." (p. 94).

Northouse (2004) stated "leadership is a process whereby an individual influences a group of individuals to achieve a common goal" (p. 3). This definition comprises the followings, which are common among leadership theories, i.e. leadership (a) is a process; (b) is about influence; (c) happens in a group context; and (d) comprises accomplishing goals (p. 3). Among leadership theories transformational leadership approach appears to be aligned with reforms and movements that took place in school counseling (Northouse, 2004). Transformational leadership allows the leader and group members to share power where they work to achieve a continuous, comprehensive transformation beyond completing the individual task. Thanks to strong charismatic and visionary appeal, the leader strategically uses relationship variables within the group to encourage desired results. According to Northouse (2004), transformational leaders are renowned as change agents,

...who are good role models, who can create and articulate a clear vision for an organization, who empower followers to achieve a higher standard, who act in ways that make others want to trust them, and who give meaning to organizational life. (p.198)

What is transformational leadership? As one of the most prominent approaches among the leadership theories of the last several decades, it is a form of leadership, which involves inspiring others to the vision and aim of the organization. Followers are challenged to be innovative leaders as they coach, mentor, challenge and support (Bass & Riggio, 2006). Transformational leadership approach embraces school counselors' role as collaborative school change agents who advocate to use comprehensive program for positive student outcomes. Most of the literature suggests the transition from an acquainted concept of leadership position to a process, from an individual practice to a set of skills embodied by a community of individuals who hold leadership positions (Katzenmeyer & Moller, 2001; Northouse, 2004; Slater 2005). Through utilizing the following dimensions: a) charismatic or inspirational influence, b) inspirational motivation, c) stimulation and d) personalized thinking (Judge & Piccolo, 2004) transformational leadership is effective in affecting employee performance and other outcomes (Judge & Piccolo, 2004; Farahnak, Ehrhart, Torrews, & Aarons, 2020). Transformational leadership includes various emotional domains associated with leadership behavior, including appealing to followers on an emotional level, inspiring them to act, and taking into account the needs of followers. Such behaviors are geared towards enhancing others and are not necessarily geared towards leaders' his or her own emotional needs.

Moreover, transformative leadership facilitates a collaborative school climate. Social-emotional skills are essential ingredients for success in life and can be attained in school. Elias, O'Brien and Weissberg, (2006) examine transformative leadership from the perspective of social and emotional learning. They argue that now, school administrators desire to see schools as exciting places for students and the school community where both academic and social-emotional learning are carried together (Elias, O'Brien, & Weissberg, 2006). Transformative leadership requires accomplishing this. Transformative leaders recognize each stakeholder's role within the school community (i.e., students, teachers, parents, and community) in keeping their schools up-to-date. Transformative leadership involves embracing many tasks; therefore, leadership must be shared, as each school professional would realize how each layer of leadership touches

everyone who holds responsibility toward students. Principals have designated roles in identifying the agenda for leadership and motivating others to share their vision.

How could one integrate schoolwide transformative leadership principles for social-emotional learning (SEL)? While every school uses various ways to integrate social and emotional learning into academics, the school leadership approach is important to implement, maintain and coordinate. These starting points include: a) "Create organizing and unifying themes, values, and visions for your school; b) Involve students in integrative service-related projects; c) Implement skill-building curricula that are linked to existing school subject areas; d) Infuse SEL into existing academic subjects" (Elias, O'Brien, & Weissberg, 2006, p. 12). These activities can be conducted through counseling and guidance activities by school counselors.

1.2. Principals influence school achievement through the school climate they cultivate

School principals influence student achievement. Principals influence school achievement primarily over the changes they create in their school climate. Allensworth & Hart (2018) examined school principal related factor's role on student achievement. Principals are generally viewed as the primary change agents to increase student success. Therefore, their role is multifaceted, and there are various ways that principals impact teaching and learning. What matters most regarding principle related factors? To answer this question the authors used data from many schools to learn how principals' role in students' higher learning outcomes on standardized achievement tests. Researchers also visited 12 schools, to interview principals and teachers so that they could study what was being done by principals, regarding achievement results (i.e., what types of actions improve what types of actions does not).

The study used both quantitative and qualitative data. The quantitative part of the study included district wide data on all Chicago public schools and surveys that contain student and teacher experiences, student test results. Qualitative parts of the study included 12 schools, which were used as case study schools (i.e., with strong or improving leadership); neighborhood schools with high level free and reduced priced lunch rates. Findings indicated that a) through fostering strong learning climates, principals have the utmost influence on student learning and b) principals create a strong learning climate when they support educators' leadership on comprehensive goals of their schools. An important outcome that emerged was that schools with the highest learning gains had principals who promoted a strong school climate, through empowering and coordinating teachers and school staff around shared goals. Another important implication indicated that improvements in the school climate, promotes success amongst teachers and students. Successful principals are skilled in organizing and supporting shared leadership among their staff. Principals empower teachers and school staff to foster collective ownership for the vision of their schools. They manage shared leadership by guiding, coordinating, and monitoring the work of teachers and leaders in the school (Allensworth & Hart, 2018).

1.3. Cross-boundary leaders connect students and their families to the opportunities and support within their school community

A report by Blank, Berg & Melaville (2006) with 11 public school community profiles showed the effectiveness of cross-boundary leadership for large-scale, community-wide education reform strategies used in an extensive community contexts (i.e., the smallest district had 2,100; the largest had 400,000 students). The study utilized school achievement data and comparison achievement data (i.e., from schools not part of this effort), surveys, and interviews. Public school community profiles described partnerships as taking place between schools and community groups where the resources are directed to foster student learning. Cross-boundary leaders who promote this process come from schools, local administration, health services, social services, community organizations, businesses, family support groups, youth development agencies, higher education, civic groups and faith-based groups. Using the designated schools' program evaluations, a report emerged which described these efforts:

Cross-boundary leaders understand that educating young people to high standards means connecting children and families to sources of opportunity and support in their community. It means welcoming the rich diversity in language, culture, and outlook that changing student populations bring to schools and refusing to evade the challenges posed by race, equity, and poverty issues. Making the best use of all their community assets, these leaders are scaling up their efforts to create a substantial number of community schools as quickly as possible, following a powerful vision with a clear focus on results (Blank, Berg & Melaville, 2006, p. v).

Blank, Berg & Melaville (2006) stated “Using public schools as the hub, community schools knit together inventive, enduring relationships among many partners who contribute expertise and resource for effective learning environments” (p. 2). Furthermore, school counselors play a critical role in creating a collaborative school atmosphere amongst shareholders using connections for partnership within the multicultural school community (Betters-Bubon & Schultz, 2017; Epstein & Van Voorhis, 2010; Evans, Zambrano, Cook, Moyer, and Duffey, 2011; O'Donnell & Kirkner, 2014). It is critical that school counselors deliver culture-sensitive school counseling programs (Dahir & Stone, 2011; Hutchins, Greenfeld, Epstein, Sanders, & Galindo, 2012; Grothaus, 2012), to create an all-inclusive learning community. There are many reasons to invest in developing school, family and community partnerships through school programs and school climate, providing family services and support with the aim of fostering connections with families in the school and community, developing parental skills and helping teachers (Epstein, 1995, p. 701). Specifically focusing on the role of school counselors facilitating leadership as change agents, the following section will focus on: a) commitment to collaborative school climate requires responding to language barrier; b) commitment to collaborative school climate requires to engage in an ongoing training; and c) commitment to collaborative school climate requires to engage in multitier system of supports.

2. How School Counselors Facilitate Leadership as Change Agents

A collaborative, systemic approach is a professional commitment for school counselors to work with others professionals in their school to engage in family involvement activities. The role of school counselors as leaders in their school, advocates for students and their families, collaborative team members within their school system and in the school community, and also their roles as systemic change agents are promoted by current movements and reforms (e.g., The ASCA National Model, 2005, 2012, 2019). School counselors are in a great position to promote family involvement practices because of their curricular training in counselor preparation programs specifically focusing on human development, human psychology, collaboration skills and supportive services, and in systems change.

2.1. Commitment to collaborative school climate requires responding to language barrier

Shortage of bilingual staff members in school hinders access to reach out to LDS and their families; thus, there is a need for an increased number of bilingual school counselors. School counselors used interpreters more often as the number of linguistically diverse students increased (Aydin, 2011; Dogan, 2017). A rising number of linguistically diverse students and the shortage of bilingual school professionals are currently being acknowledged in the literature. Because linguistically diverse students' needs often go unmet in counseling, due to language barriers, school counselors' training programs should address this issue (Paredes, 2010). Also, shortage of bilingual school staff hinders linguistically diverse families' ability to be involved in the school and school community (Chavkin & Gonzalez, 1995). These facts call school counselors for to engage in taking a leadership role in creating a collaborative school climate.

In Aydin's study with 916 school counselors in America, nearly one-fifth of the participants (17.6%; 152) stated that they were bilingual or multilingual, while the majority (82.2%; 712) stated that they were not. The bilingual status of the counselors in school and the use of interpreters were associated to their general engagement and also involvement in partnerships with linguistically diverse students. The approximate total number of enrolled English language learners averaged 214 (SD = 477), revealing that one out of every four enrolled students is linguistically diverse. Given the descriptive statistics for the approximate total number of enrolled students (M = 905; SD = 723), about half of the students (M = 370; SS = 575) were typically enrolled on free and reduced priced lunch programs (Aydin, 2011).

Do school counselor variables (the use of interpreters and bilingual status) predict involvement in school and community partnerships with linguistically diverse families? Aydin (2011) investigated to what degree the use of interpreters, bilingual status, caseload, race and ethnicity, and free and reduced priced lunch status correlated with the percentage of linguistically diverse students. The ANOVA test showed important results that the use of interpreters was influenced by the percentage of linguistically diverse students. School counselors used interpreters more often when they had increased number of linguistically diverse students. Furthermore, there was a meaningful relationship between percentages of linguistically diverse students served and free and reduced priced lunch status, caseload, bilingual status, and race and ethnicity. When school counselors had a larger percentage of linguistically diverse students, they tended to have a larger number of students on their caseloads, when they were bilingual or

multilingual, coming from a diverse background having a different background, and having a higher number of students on free and reduced priced lunch status.

Counselor education programs and professional organizations need to emphasize training bilingual school counselors. Communication may be a barrier for a majority of monolingual school counselors (82.2%; corresponding to 712 participants), highlighting an apparent need for bilingual school counselors (Aydin, 2011). Lately, school counseling programs are offering specializations and certificates in bilingual school counseling (e.g., Brooklyn College, St. John's University, Mercy College, NYU Steinhardt School of Culture) (Paredes, 2010). Efforts to encourage bilingual and multilingual individuals in the school system should be supported. Counselor education and counselor training programs in Turkey should consider training Arabic speaking candidates in teaching, school and mental health counseling and administration. Through the Department of Education, Turkish Ministry of National Education is implementing a project titled "Project on Promoting Integration of Syrian Kids into the Turkish Education System." The main purpose of PIKTES is to encourage the accessibility of kids to education in Turkey who are under provisional protection while also promoting their social integration within the school community. Another central mission of this exemplary project is to work closely in conjunction with the Ministry of National Education. With this purpose the aim is to both realize educational goals and assist refugee students who are under provisional protection to accommodate to the educational community.

The research conducted by Sarıtaş, Şahin, and Çatalbaş (2016) revealed that the most common problem faced by primary school teachers and administrators with refugee students was the language barrier. Regarding the solution of the problems faced by the teachers and administrators working with refugee students the following opinions were expressed: providing pre-school education, giving these family and students language education, providing education in the same class with other students to protect them against discrimination and labeling and opening a designated unit under the auspices of the Directorate of National Education. Solak and Çelik (2018) conducted a study aimed to determine language-related problems of refugee students who have migrated to Turkey at the elementary school level. This qualitative study included fifteen refugee students attending two primary schools in Ankara. Five Syrian, three Iraqi, three Afghanistan, two Somali, one Libyan and one Iranian student were interviewed along with ten teachers. The results revealed that students who were not subject to the language preparation process and started school without addressing the language barrier face social and academic issues. These students are unable to progress academically because they do not understand the lessons taught at school (Solak & Çelik, 2018) and also socially because of the inability to communicate with their peers (Mercan-Uzun & Bütün (2016) both of which may negatively affect their future success (Solak & Çelik, 2018). Language barriers of refugee students emerge as a serious obstacle in their education.

2.2. Commitment to collaborative school climate requires to engage in an ongoing training

Pledging to create a collaborative school climate requires all educators to be in an ongoing training. There are professional development needs and multicultural competency skills training of school counselors for responding to diverse students' needs. Given the rapid increase in linguistically diverse students in K-12 school settings, there are not many studies focusing on the educational and professional development needs of school counselors (e.g. McCall-Perez, 2000; Schwallie-Giddis, et. al., 2004; Paredes, 2010). In 2012, Aydin, Bryan, and Duys conducted a survey study with 95 school counselors in Iowa, findings indicated that 74% of the participants received between 0 - 10 hours of training in partnership.

Training is an important variable, influencing school counselors' leadership role in creating collaborative school climates. Aydin's (2011) national study with 916 school counselors showed that approximately 40% of the participants received less than 10 hours of general training in school, family and community partnerships practices. In addition, nearly half of the participants stated having not been trained in school, family and community partnerships specific to working with linguistically diverse students and families. This finding underlines the need for school, family and community partnership training particularly in working with linguistically diverse families. Similarly, in a study by Paredes (2010), with 601 school counselors using the School Counselor Self-Efficacy (SC-SELL) scale with ELLs; while working with linguistically diverse students, the vast majority of the participants stated that their professional development needs were not being sufficiently met. Conversely, when school counselors had linguistically diverse students in their schools, they did not mind having more students in their caseload.

The attitudes and perceptions of educators and administrators influence their work as they attend to the needs of refugee students who are under provisional protection in Turkish schools. A qualitative study conducted by Sakız (2016) examined the thoughts, beliefs and attitudes of 18 school administrators on the inclusion of linguistically diverse Syrian refugee students who are under provisional protection in

Southeastern Anatolia Region schools. During their interview, participants emphasized that when educating children, teachers should be provided additional training to increase their professional competency and also to help them most effectively engage with students from diverse backgrounds and various conditions. Another qualitative study conducted by Mercan-Uzun and Bütün (2016) interviewed six pre-school teachers. These educators who had refugee students who are under provisional protection in their classes stated that they felt inadequate in solving problems and did not know how to help these children because they had not worked with refugee students before. Teachers stated that refugee students could not communicate with their peers and teachers because they did not speak Turkish and as a result they felt alienated. Preschool teachers stated that they had difficulty supporting these students. Eventually, language issues make it difficult for refugee students who are under provisional protection to develop a sense of belonging. According to school administrators teachers had difficulties in identifying problems of refugee students who are under provisional protection (Eroğlu & Gülcan, 2016). Balkar, Şahin, and Işıklı- Babahan (2016) stated that teachers felt inadequate in classroom discipline and needed professional / in-service development. Similarly, Taştekin, Bozkurt-Yükçü, İzoglu, Güngör, Işık Uslu, and Demircioğlu (2016) found that teachers have a positive attitude towards multiculturalism, but in their classroom practices they reported that they did not feel competent due to factors such as a) family members' approaches; b) attitudes of school administrators; c) deficiencies in the curriculum and d) not having sufficient knowledge about multiculturalism. Partnerships with stakeholders are very essential to work with linguistically diverse students and families (Aydin, 2011; Davis, 2005).

Having the experience to work with linguistically diverse students may help increase educators' level of knowledge, awareness and skills. Sağlam and Ilksen-Kanbur (2017) conducted a study to examine the attitudes of classroom teachers towards refugee students in Turkey. They developed the "Refugee Student Attitude Scale (RSAS)" which included three sub-dimensions and 24 items. The three sub-dimensions of the scale were *communication*, *adaptation* and *efficiency*. The scale was completed by 501 classroom teachers (53% female; 47% male) working in Northeastern Turkey during the 2016-2017 academic year. Results found teachers' competence towards teaching refugee students predicted by gender as men felt more competent than women. Moreover, results revealed that teachers showed a more positive attitude if there was a refugee student in their class, indicating the role of exposure to the needs of linguistically diverse students has helped increase teachers' awareness and understanding. In short, school professionals' attitudes influence students' learning experience (Allensworth & Hart, 2018). All of the above-mentioned reasons, school, family and community partnerships with stakeholders in order to create collaborative school climate are very critical for school professionals to work with linguistically diverse students and families (Aydin, 2011, Davis & Lambie, 2005; Davis, 2005).

2.3. Commitment to collaborative school climate requires to engage in multitiered system of supports

When school counselors and principals join forces, students from linguistically diverse backgrounds learn and achieve better. A collaborative school climate is critical in order to develop a positive organizational school culture, which generates higher levels of motivations for greater connection among the stakeholders (Hutchins, Greenfeld, Epstein, Sanders, & Galindo, 2012). Multitiered system of supports (MSSS) is a culturally responsive, evidence-based model used in grade schools that integrate data-based strategies for problem solving. When academic content, behavioral responses and interventions tackled at tiered both the learning outcome and social-emotional functioning become stronger of all students (Sink, 2016). Moving forward by student related data, school counselors and principals join forces as MTSS teams that involve circular data-based problem solving approach. Thus, they have the renewed opportunities to make more sensible decisions both for general population and also for other students with diverse educational needs. MSSS approach assists furthering to generate more integrated all-in-one system of curricular instruction and behavioral intervention (Ehren, Montgomery, Rudebush, & Whitmire, 2006). When school professionals operate from the MTSS perspective, they have the opportunity to further the long-term effect on students academically and behaviorally (Ziomek-Daigle, Goodman-Scott & Donohue, 2016). The implementation of MTSS lines up with the role of school counselors as leaders in their school system. They advocate for students and their families, collaborative their team members within the school system mainly with the school management (The ASCA National Model, 2005, 2012, 2019). As a result, according to the ASCA National Model, school counselors facilitate systemic interventions when they carry out their role of school counseling at any grade level which can be used across various domains (i.e., for example academic, career and social and emotional development) (Hatch, Duarte, & Degregorio, 2017). As a key player within the school system, school counselors engage in the

abovementioned practices and join their forces with the school administration, which in turn influences students' achievement (i.e., through facilitating collaborative school climate) (Aydin, 2011; Yildiz, 2021).

Implications

According to Bryan and Griffin (2010), school factors (i.e., collaborative climate and principal expectations) are related to participation. A number of school and school counselor-related factors (e.g. principal support, principal expectations, collaborative school climate, time constraints, lack of resources, attitudes about families) influence participation in community partnerships with school, family, and linguistically diverse families (e.g. Bryan, 2005; Griffin and Steen, 2010). The effectiveness of school, family, and community partnerships for students' success has been emphasized by many researchers. However, numerous barriers for families are hinder effective school, family and community partnerships. Lack of trust for participation, and socioeconomic, cultural or linguistic barriers hinder involvement. School professionals may have inadequate information or misconceptions about families, insufficient training. Understanding barriers to the school counselor's participation in linguistically diverse families should be investigated in future research to overcome them (Aydin, 2011).

Aydin's (2011) study calls attention to the complexity of involvement in school, family and community partnerships with linguistically diverse families. General factors account for 70% of variance, while unexplained effects account for 22% in psychotherapy outcome, signifying that counselor training should focus on utilizing common factors (e.g., building a stronger alliance) to facilitate results [involvement] (Wampold, 2001; Wampold, & Imel, 2015). Aydin (2011)'s study working with linguistically diverse families offers critical information on how achievement gaps can be narrowed. It contributes to the literature by offering a further understanding for school counselors and counselor educators on whether school and school counselor-related factors may help or hinder involvement in SFC partnerships. The number of school and school counselor-related factors (e.g., principal support principal expectations, collaborative school climate, time constraints, lack of resources, attitudes about families) influence involvement in school, family and community partnerships with linguistically diverse families.

There is a need for an increased number of bilingual school counselors. Since language may be a barrier for monolingual school counselors working with linguistically diverse students, it is crucial to recruit bilingual individuals in the field (Paredes, 2010). While in some occasions linguistically diverse students may have adequate English proficiency skills to communicate in school; their emotions might be more accurately and eloquently communicated in their native languages (Acevedo, Reyes, Annett, & Lopez, 2003). Thus, school counselor training programs should encourage learning another language. No wonder why the U.S. Surgeon General highlights the importance of having bilingual mental health care-givers.

Limitations and Conclusion

One of the major limitations for serving linguistically diverse students is caused by language barrier. In the literature, it is widely recognized that linguistically diverse students struggle due to language issues. Moreover, they may have difficulties expressing themselves for multiple reasons; for example, they may not know the language well enough, they may have a trauma experience caused by the war and they may experience developmental differences in their classroom since learning a language may delay their education. Language barrier may also lead to emotional challenges such as anger and aggression. Due to these challenges linguistically diverse students resort to violence and crime (i.e., often getting involved in disciplinary acts). School professionals may handle behavioral problems to overcome these limitations by providing in-class activities such as "Don't be a bully, be a friend", offering seminars on peer bullying and individual sessions that inform these students about school rules and culture and by providing a greater understanding on the fact that war feeds on violence (Cin, 2018; Günlü, Sağlam, Gürat, & Uz, 2020).

The literature reviewed indicates that school counselors have a leadership role in creating a collaborative school climate. Joining forces with the school principal would be of great benefit to students' school success and overall well-being, specifically students from linguistically diverse backgrounds. School counselors promote stronger collaboration with their school principals through engaging families to community resources for support and facilitating learning in building effective schools. When they facilitate family engagement and partnership with linguistically diverse families, they act as systemic change agents; thus these efforts transform their schools. Commitment to collaborative school climate requires school counselors to engage in an ongoing training to meet the needs of diverse student populations, including responding to language barrier (Gencer, 2017; Sağlam & İlksen-Kanbur, 2017). Briefly, school counselors, together with their principals, must invest in to create supportive communities, effective schools and strong families for linguistically diverse students.

Providing trauma education to school professionals, increasing parental engagement, providing language training to enable students to express themselves, and raising awareness of refugee students about Turkish school culture are among the solutions that is offered to address these limitations. It is noted that refugee students, who have difficulty in adapting, often have language problems that cause them to group with their friends from their own culture. Practicing inclusive education and social activities where Turkish and refugee students socialize may prevent groupings. Responding to the needs of these linguistically diverse students, in-service training practices and College of Education curriculum should be revised and reviewed (Günlü, Sağlam, Gürat, & Uz, 2020; Sağlam & İlksen-Kanbur, 2017).

There are nearly 35 thousand counselors in Turkey and 95% of these graduates are employed in the Ministry of National Education as school counselors. Nearly 16.000 undergraduates from various counseling programs are currently looking for opportunities to be hired in schools. In this context, in line with the 2023 vision of the Ministry of National Education, many reforms are needed in the field of school counseling (Turkish PDR, 2019). When school counselors and principals join forces, they promote their students' social integration, school achievement and overall well-being (Allensworth & Hart, 2018).

Moreover, when school counselors and principals join forces, students from linguistically diverse backgrounds learn and achieve better. Focusing the role of principals the following topics are explored; a) transformative leadership that facilitates collaborative school climate; b) principals influence school achievement through the school climate they cultivate; and c) cross-boundary leaders work with students and their families to connect them with the opportunities and also support them within the school community. Moreover, focusing on the role of school counselors facilitating leadership as change agents, the following topics are discussed; a) commitment to collaborative school climate requires responding to the language barrier; b) commitment to collaborative school climate requires engagement in an ongoing training; and c) commitment to collaborative school climate requires engagement in multitier system of supports. It is critical to create a collaborative school climate where school counselors and principals join forces to develop a positive organizational school culture for greater connection among the stakeholders.

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Educating and facing an uncertain and hasty world: Contributions to a critical teleological reframing

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Abstract

We first present the challenges of the endangered environment we live in, marked by growing populations, hypermobility, resource depletion, climate degradation, promising yet menacing revolutions in artificial intelligence and bioengineering, and the end of static and predictable labour markets. All of these are fragmenting our lives, leaving change as the only constant. Education is appointed as the contemporary key differentiator in developing the knowledge, skills, attitudes, and values that enable people to contribute to and benefit from an inclusive and sustainable future. Character qualities and soft competencies appear as part of the social dynamics that imply civic participation and trust, forming a kind of social glue, indispensable for creating an environment conducive to the attitudes and the behaviours of compromise, compliance, risk-taking, change and innovation that are needed. Secondly, we discuss the concept of competencies to show how knowledge, attitudes and values are intertwined in a complex construct, concluding that we need humanities as much as we need science and mathematics. Thirdly, we consider the teleological question as fundamental to education. Consequently, an antinomial approach to the functions of education is proposed, namely, by differentiating qualification, socialisation, and subjectification. Meaning that the educands can be given a qualification but also the opportunity to grow through socialization processes and by opening the ways to construct their subjectification, without which they will never achieve the status of being authors of their own personhood, owners of their own lives, meaning that education ought to address the empowerment and emancipation of living minds. So, the person's emergence and affirmation are stated as the core to articulating the values of the current dominant regime and to envisaging a breakthrough to emancipatory education. Considering the issues referred, the problem of this essay could be stated as follows: "What answers are requested on the teleological realm of education when facing the challenges of our hasty world, namely regarding the competencies required, the functions of education, and especially the core problematic of the person's emergence and affirmation."

Keywords: Education, uncertainty, globalization, competencies, qualification, socialization, subjectification, emancipation

1. Education within the perfect storm of an uncertain and hasty "Brave New World"

Humankind has come to a historical phase that seems to be close to producing a "perfect storm", indicating a drastically rare combination of circumstances that can produce a catastrophic event. There is no doubt that we currently live in an endangered environment (Schleicher, 2018), marked by growing populations, hypermobility, resource depletion, climate degradation, promising yet menacing artificial intelligence and bioengineering revolutions, along with the end of static and predictable labour markets (WEC, 2016). Globalization and intense challenging processes of interaction and acceleration are steering the general dynamics intertwined with narratives void and connected to a growing fragmentation of our lives (Han, 2017), with change as the only constant (Harari, 2018).

Regarding the societal matrix, we can say it is engendered by the dominance of economic neoliberal capitalist policy of indefinite growth and is responsible for the installation of the hegemony of efficacy, or "performativity", as Lyotard (1979) foresaw when the process was already past the germination phase. The techno-scientific and consumerist, capitalist-dominant paradigm entails the cult of power as an aim under the dominance of Anthropocene narratives and neoliberal economic growth (Fremaux, 2017). As collateral damage, we are watching the withering of educational teleology, the devaluation of humanities and a bias of the school systems towards STEM (Science, Technology, Engineering and Mathematics).

Before I address the details of a proposed solution, we note that education was identified by Schleicher (2018) as the contemporary "key differentiator" when considering the SWOT analysis of the complex current global situation. The threats it envisaged include the maintaining or widening of the processes of inequality; the biological computer-engineering revolution impact on humans; the technology clash

between schooling and human competencies; and the eventual effect of massive destruction of jobs, which is quicker than the creation of new ones. As to weaknesses, we must sort factors such as humans' lower competence when compared to that of robots and artificial intelligence; humans' low resistance to change when compared to that of machines. However, it is also compensatory to mention the strengths of humankind: the cognitive, emotional competencies we are endowed with and can develop through education and reality interaction; the development of character qualities to cope with the challenges ahead; and the values, the creativity and the supposed unlimited capacity of adaptation and imagination that are credited to humans.

Considering the dilemmas that afflict our societies, the OECD has uttered a warning: "If not steered with a purpose, the rapid advance of science and technology, may widen iniquities, exacerbate social fragmentation and accelerate resources depletion" (OECD, 2018, p. 3). And it goes on saying that: "In the 21st century, that purpose has been increasingly defined in terms of well-being. But well-being involves more than access to material resources, such as income and wealth, jobs and earnings, and housing. It is also related to the quality of life, including health, civic engagement, social connections, education, security, life satisfaction and the environment. Equitable access to all of these underpins the concept of inclusive growth. *Education has a vital role to play in developing the knowledge, skills, attitudes and values that enable people to contribute to and benefit from an inclusive and sustainable future* [the italics is mine]. Learning to form clear and purposeful goals, work with others with different perspectives, find untapped opportunities and identify multiple solutions to big problems will be essential in the coming years." (OECD, 2018, pp. 3-4)

It does become clear to the OECD that education needs to focus on preparing for a domain that exceeds the reductive concern with the world of work, namely, what could promote students' commitment as active citizens. In this respect, Schleicher (2018) insists on knowledge, competencies, and something more refined, which he denominates character qualities. As to these, Paul Tough (2012) has poignantly shown how character can be determinant of success within the school system up to higher education completion and beyond, mainly by getting a job. The author devises 11 competencies of character that can be innate but also be the subject of education: optimism, self-control, motivation, determination, awareness, perseverance, challenges, discipline, habits, identity, and metacognition.

In many ways, we can see in this reading—now broadly supported by scientific literature—the same approach as Aristotelian ethics, which rely on the formation of a second nature by cultivating good habits, while aiming at moderation, as the regimen for conducting one's life in all realms, so to grasp a sense of the transient "end of ends" towards personal and social fulfilment (Hall, 2018). All this could be attained by relying on human experience and good reasoning within a cooperative way of living, indispensable to social beings. It must be stressed that the whole process entails realising one's potential, never to be conceived apart from the social context, but planned intentionally, by reason, will, commitment, discipline, and effort, which requires not only education but also a certain kind of education, precisely the one sufficiently attentive and sensible to be able to help the educated "to identify their potentialities and actualize them" (Hall, 2018, p. 46).

The above-referred character qualities are inserted into a domain that Schleicher (2018) denominates as **soft competencies**, which he proposes as part of the social dynamics that imply civic participation and trust, forming a kind of social glue, indispensable for creating an environment conducive to the values, attitudes and behaviours of compromise, compliance, risk-taking, change and innovation. As the author stresses, an equitable-education growth model is needed for assuming the ethical and societal requirements in addition with the opportunity of the –more than desirable, indispensable– equitable distribution of knowledge, competencies, and earnings. The latter cannot be understood as simple economic redistribution dissociated from social participation (Schleicher, 2018). Such is the basis for a more inclusive society and a more dynamic economy, i.e., an overall better society and economy, which ought to achieve the balance of justice, cohesion, and sustainable production, where education plays the role of "key differentiator".

2. What competencies and what for

We are summoned to configure our education systems (ES) as critical instruments for the guarantee of delivering the knowledge, competencies and character qualities demanded by our uncertain and hasty "Brave New World". Thus, our ES are expected to engender the dynamics able to provide the knowledge construction, the increase of competencies and the stimulation of the character qualities that the daredevil civilization we have unleashed is pressing for. Here we must take care of the duality of such defiance, which could be worthy or not, depending on the teleological point of view we adopt, an issue to be addressed later in this essay.

A subject that has dominated the discourse of education in the last three decades, coming from corporate management, is the concept of competencies or skills. After the meteoric rise of the concept, criticism started to appear in a more organized and incisive fashion. For instance, Christodoulou (2014) has presented a famous stinging critical analysis against the envisaging of education based on competencies.

It is now widely recognized that the convergence in the development of competencies has become the hegemonic discourse in several domains, from educational sciences and psychology to economics and the policymakers of various origins. A profusion, not to say a cacophony, of opinionated appraisements, have come to blur the subject more than to clarify it. It seems that sometimes the oracles on the issue missed reading each other's utterances.

The concept of competencies is traceable back to the concerns of managerial literature coming from the realm of industry. A seminal advance on the matter was made by Durand (1998), who presented a concept that intertwines knowledge, know-how and attitudes as interdependent components of competencies (See Figure 1).

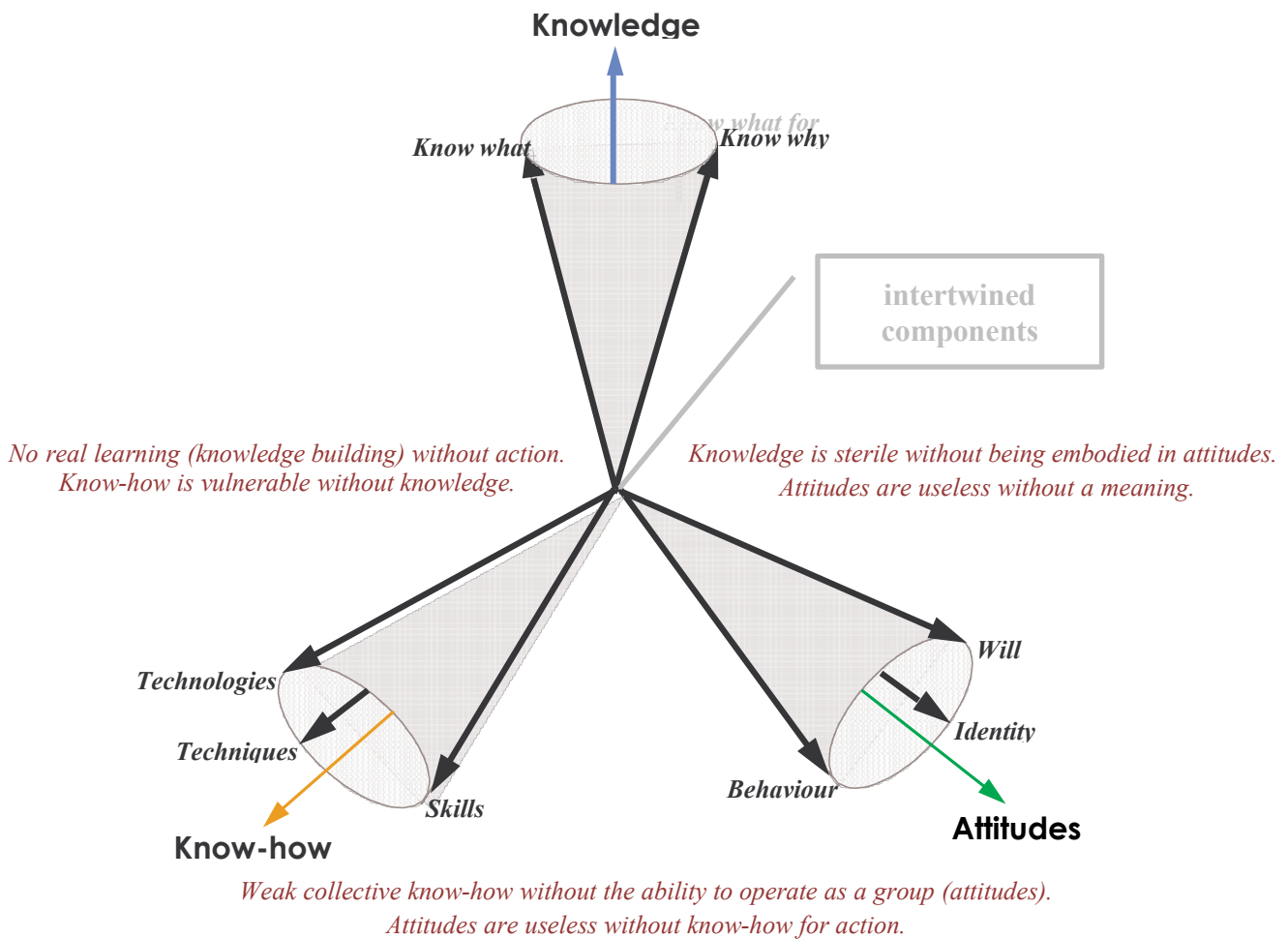


Figure 1: Durand's competencies framework (adapted from Durand, 1998)

As could be inferred from the above-presented figure, there are epistemological implications, as well as pedagogical ones, underpinning the intention of interrelating the three components. The cited author points to knowledge-building through action and to the vulnerability of knowing how to act when having some knowledge deficit, which could represent a kind of blind or grope acting. On the other hand, we suggest that knowledge is broadly sterile if not embodied within attitudes, which are dependent on knowledge to make a person be prone to act in a certain informed way.

Attitudes would be as useless as they are empty when devoid of a meaning coming from knowledge. Yet knowing how to act collectively could suffer from weakness when group-embodied attitudes are absent. Finally, I should note it is sterile to have the right attitudes without knowing how to act properly, and lacking the strength of that will give way to initiate an action.

Such an account explains the interrelation of the components and provides the epistemological ground for the pedagogical understanding of the concept. Moreover, it is necessary, both epistemologically and

pedagogically, to consider the sub dimensions of each component. Knowledge entails “know what” and “know why”. Know-how relies on skills, techniques, and technologies, which configure a continuum from the tacit- to knowledge-supported acting, and this could refer to psychophysical as cognitive ways to proceed.

Too many times we have seen competencies confused with skills, a word that is so frayed that it has become a black box for disseminating misunderstandings and ill-informed approaches. A divulged “learning framework” that refers to the concept of competencies was presented by the Organisation for Economic Co-operation and Development (OECD) in 2014. The programmatic document issued by the OECD aims to introduce global changes until 2030,

Recently, the Council of Europe (2016) published a proposed model of competencies for democratic culture, which contributes to the subject by presenting values as a new competency or, in my analysis, a new component of competencies. The authors of the model argue that values and attitudes differ because the former are “characterised by their normative prescriptive quality”; hence they stress that values are essential to specify and “underpin competencies”, namely, attitudes (Council of Europe, 2016, p. 36). The clover of knowledge, know-how, attitudes and values, gives a sound description of the concept of competencies, inserting in the equation four elements essential to understand human complexity. The problem arises when the same document refers to skills instead of know-how, thus plunging the reader into an obscure conception of competencies. The OECD Learning Framework considers knowledge (disciplinary, interdisciplinary, epistemic, and procedural), but recedes to the concept of skills (cognitive and metacognitive, social, and emotional, physical, and practical) and conflates attitudes and values (personal, local, societal, and global). The scheme also shows competencies as intertwined and focuses on students’ language literacy and numeracy, along with data, health, and digital literacy as learning realms to be fulfilled. Which implies responsible commitment, disposal to reconciling tensions and dilemmas, by applying reflection, anticipation and be involved in action for attaining an individual and societal wellbeing, counting with the participation of teachers, parents, and peers for attaining the necessary solutions.

The approaches I have elucidated all coincide in looking at the importance of education and competencies, envisaging the latter as including the already alluded to soft competencies (Schleicher, 2018). They include the capacity to participate, to compromise, to be responsible (the so-called social glue), to be opened to change and risk-taking, and to be enthusiastic about innovation. While the term “soft” serves to denote human potentialities that, although related, are not limited to the sole purpose of efficacy and efficiency in the “world of work”, it requires, nevertheless, a critical approach. In one way, it seems that designating some competencies as “soft” serves to reinforce the current proclivity towards STEM. This reflects the organisation of the curricula and the overvaluation of quantitative aspects—such as of learning, teaching, educational administration, rankings, privileged areas of the curricula, and quantitative research about education—by installing a “culture of measurement” (Biesta, 2009).

In another way, the term “soft” does serve to becloud the importance and the role of humanities in our ES. Such culture corresponds to unbalance setting for developing autonomous, critical, and creative persons. And he has seen it instilled since the very beginning of schooling, not to say right from the cradle when one considers the parents' expectations regarding school and work.

Soft skills are often treated as personality or character competencies relating to attitudes in the context of the “world of work”, which is why some view them as “transferable skills” (Cimatti, 2016). Hard skills are considered abilities to perform a specific professional activity or task. Soft skills are not necessarily depreciated; rather, they are seen as complementary and even strategic as personal and professional achievements, being considered necessary criteria for hiring selection, given the current appreciation of competencies such as communication, cooperation, teamwork adaptability, responsibility, empathy, and sociability. This is because a company’s success does not just depend on the materials used or technical expertise, but largely on the atmosphere or culture it can generate. Hence, it stays hostage to the “human capital” literal approach, when strongly dependent on the paradigm of efficacy, being blind to regarding Humanities’ importance, significance, and role. Configuring an understanding that cannot see that an integral human conception requires an education must go beyond professionalism, technical competencies and the useful; it must focus on what can make us better and freer persons, which is the basis of the humanities, also referred to as “the usefulness of the useless” (Ordine, 2017).

Although mainly approaching the issue from the “human capital theory”, Cimatti was well aware of the slippage to a technical formation obsessively focused on the “world of work” when she stated, following the OECD, that we must stress “the need to develop a whole child with a balanced set of cognitive, social and emotional skills in order to better face the challenges of the 21st century” (Cimatti, 2016, p. 103). In fact, she recognized that establishing a clear border between hard and soft skills implies their dissociation, thus failing to comprehend how they “are integrated and the same task always requires using both together” (Cimatti, 2016, p. 108).

Moreover, relying upon Martha Nussbaum (2010), “Not for profit” book, one can examine “profitable skills”, which erode critical and divergent thinking while cloistering people in mainstream ways of thought by blocking complex approaches to our problems, and by failing to look at competencies as encompassing those that aim at the wholeness of the person.

I conclude that we need humanities as much as we need sciences and mathematics. Moreover, we need STEM not just balanced with STEAM (Sciences, Technology, Engineering, Arts and Mathematics), but also as it can be integrated into learning for the whole person and for conceptualizing humankind, as I will explain in the next section.

3. What education and what for?

The analysis I have essayed above has brought about the problem of teleology in education, to which I will attempt to give at least a clarifying, if not completely innovative, explanation. All the astonishing subjects, all the complex, subtle, impassable, and far-reaching issues or aporias until now have brought our analytical perambulation to the point that unveils the inescapable question of “What is a good education?” It is a question that is silenced by the narratives of performativity and “learnification”, a term coined by Gert Biesta (2009, 2010) to express a practice and a culture that biases education by narrowing its functions, overvaluing the “learning” element, and devaluing teaching, contents, under a scope of several purposes.

In fact, we have observed in the past decades a growing tendency towards a process of erasing and obnubilating the question and the importance of educational teleological approaches. It seems as if these are either dispensable by introducing a simple didactic focus of the teaching and learning processes or not existent at all. However, when we ask what education is for, not only do we find that the point of education is not that students learn, but also that they “learn something, that they learn it for a reason, and that they learn it from someone” (Biesta, 2015, p. 76). This reinstates the teleological issue as a basilar starting subject from where to initiate the reflection about the purposes, the ends, the aims, the contents, the methodologies, the assessment strategies, the ambiances, and the cultures to develop. Without it, we will be like Alice lost in wonderland asking the Cheshire cat

“Would you tell me, please, which way I ought to go from here?”
 “That depends a good deal on where you want to get to,” said the Cat.
 “I don’t much care where –,” said Alice.
 “Then it doesn’t matter which way you go,” said the Cat.
 “–So long as I get SOMEWHERE,” Alice added as an explanation.
 “Oh, you’re sure to do that,” said the Cat, “if you only walk long enough.”
 (Lewis Carrol, 1866, pp. 89–90)

Just as the cat mysteriously disappeared from the branch of the tree, so too the teleological question will disappear, leaving the bizarre smile of those who make peremptory discourses on education without once recognizing the crucial role of the teleological fundamental stance.

To deepen the teleological question of education, it is unavoidable that we appeal to theories of education that must lay far-reaching roots, thus demanding a kind of reflection that is aware of its complexity. The teleological question is as fundamental as it is constitutive of education, meaning that as a practice it necessarily refers to an indispensable normative horizon of referents. When we ask, “What is education for?”, it is plausible that the issue of the functions of education stand out, being that we can easily and concomitantly unveil several domains of educational purpose, for instance: qualification, socialisation and subjectification: “Qualification has to do with the transmission and acquisition of knowledge, skills and dispositions. This is important because it allows children and young people to ‘do’ something—it qualifies them. This ‘doing’ can be very specific, such as in the field of vocational and professional education, or it can be conceived more widely, such as in general education that seeks to prepare children and young people for their lives in complex modern societies. But education is not just about knowledge, skills, and dispositions. Through education we also represent and initiate children and young people in traditions and ways of being and doing, such as cultural, professional, political, religious traditions, etc. This is the socialisation dimension, which is partly an explicit aim of education but, as research in the sociology of education has shown, also works behind the backs of students and teachers, for example in the ways in which education reproduces existing social structures, divisions, and inequalities. In addition to qualification and socialisation, education also impacts positively or negatively on the student as a person. This is what I have referred to as the domain of subjectification, which has to do with the way in which children and young people come to exist as subjects of initiative and responsibility rather than as objects of the actions of others.” (Biesta, 2015a, p. 77)

Such domains are well represented by the following scheme (Figure 1), which I adapted from Biesta (2015a, p. 78).

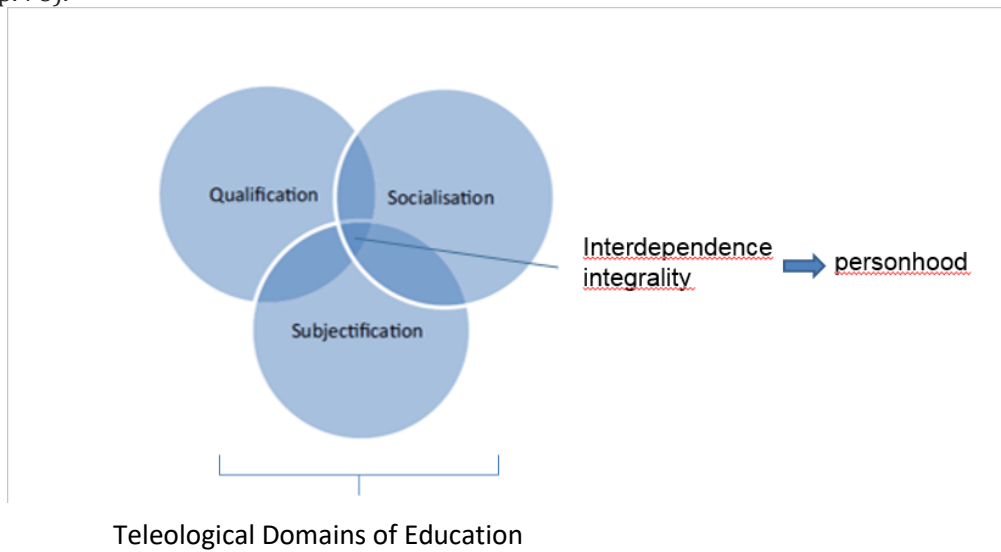
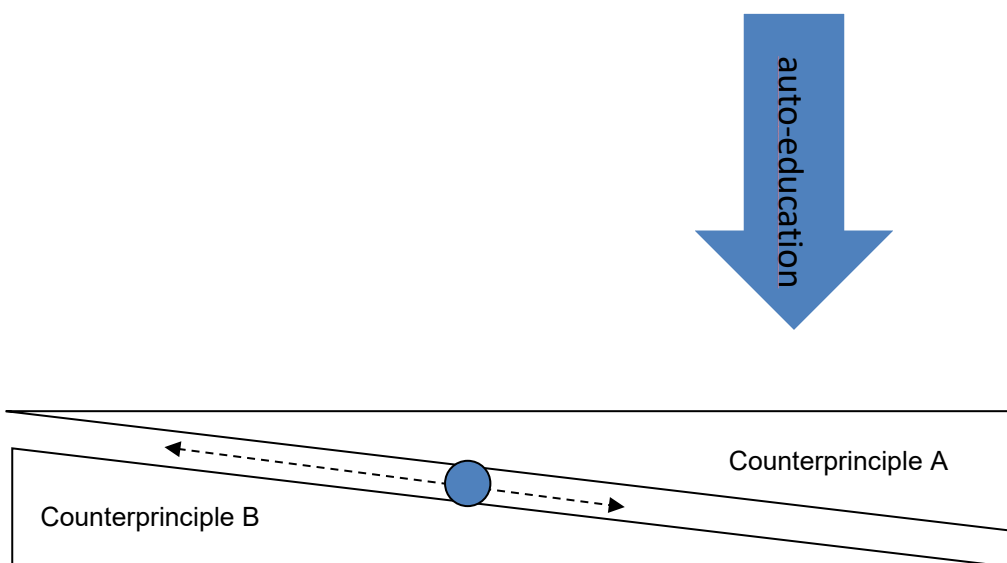


Figure 2: Teleological domains of education (adapted from Biesta, 2015, 78)

The above-selected domains are all important, although their relative importance can vary along the educational continuum. To figure out the relative importance of the purposes, we approach education through an antinomical dialogical methodology (Reis, 2014). In such an approach, we consider education as being antinomical, i.e., intrinsically constituted by antinomies that form a pair of opposed principles, albeit both being sustainable. Hence, we require a reading that can distinguish such principles and still understand their integrative unity. An illustration of this perspective can be given with an example that considers that each educand needs hetero-education (through the intervention of someone) as well as auto-education (developed by oneself), although the balance between them could be dynamic. One can be more dependent on hetero-education at the beginning of one’s life and, as one grows in autonomy can be more competent to assume one’s own education and become less and less dependent on others. This means, as I try to show in Figure 2, that the optimum equilibrium point may be displaced in accompanying the appreciation of the subject’s conditions once the space for hetero or auto-education would be dependent of the of the advances and/or setback experienced by the educand.



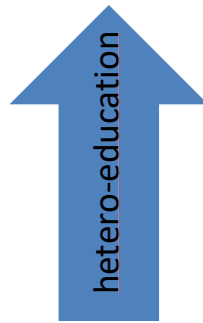


Figure 3: An example of the dynamic antinomical “dialogy” of education (Adapted from Reis, 2014)

We can envisage the analysis of qualification, socialisation, and subjectification by a dialogical approach—if we try to balance two factors—or more adequately a “trinomial” reading if we try to consider the three teleological domains at once. To grasp the complexity of teaching, seen from the perspective of the triple character of educational purpose, we can use the metaphor of three-dimensional chess in which three complete games are played on overlapping boards and in which the pieces not only interact horizontally but also vertically. Hence, “a move in the ‘game’ of qualification not only impacts what happens and can happen there, but at the very same time ‘does’ something in the ‘games’ of socialisation and “subjectification”, and vice versa.” (Biesta, 2015b, p. 5) Such insight can easily make us envisage how an overweighting of one of the teleological domains can imbalance and deform the curriculum, the educational ambience, and methodologies to the point of producing an abomination.

When it comes to considering the impact of an eventual distortion on the subject (teacher/student), by, for instance, installing a hegemony of qualification along with a dominant perspective of “learnification” that overvalues the preparation for the “world of work”, we risk inducing a deformity in the outcomes. School systems could tend to a sole recognition of the educands and the educators as agents (acting under control), or at best, as being allowed to embody an actor’s role (like the operator of machines), never acknowledging the possibility of the subjects’ becoming authors of meaning (Pourtois & Desmet, 1997). This result is, at best, an adaptation that forces the subject to behave in the role of a functionary, thus becoming converted into a gear wheel in the system. Such an arrangement could destroy the space for the inclusion of differences like interests, motivations, desires, skills, rhythms, and dissent. But if we expect that not only the educands are allowed to grow through socialisation and by opening ways to construct their subjectification, but they will also never achieve the status of being authors of their own personhood or owners of their own lives. This means that education ought to address the empowerment and emancipation of living minds.

We have just referred to the subject of personhood within the issue of the teleological purposes of education. As a consequence of such approach, we have to conclude with the help of a scheme, presented below, so to try to show how the concept of person could endow us with the integral telos of education.

As we have seen, all domains of teleological purpose are to be considered *a priori* of equal importance, although we can devise relative arrangements that may attribute different importance to each telos. Besides, we should bear in mind that the fact that the domains intersect means that they are intertwined; thus any “moves on the board” of a given domain entail repercussions for the others, which could be positively stimulating or hindering. The eventual intersections that represent the interactive dynamics of the domains raise the most defiant questions in education. All together they claim a kind of critical reflection that facilitates a profile for the educands when achieving, for instance, the end of compulsory schooling¹. When it comes to the intersection of the three realms of educational purposes, we found more than an arrangement between telos; we unveiled the integrative nature of education. Such point of confluence exponentiates the meaning stemming from the teleological conjugation of purposes; it indicates the whole person or personhood as the desired teleological referential centre of education (see Figure 2). It cannot be but an ample proposal or we would risk proposing some kind of monstrosity (Standish, 2003).

Postmodernists, while rehearsing a fair criticism of the mercantilist, consumerist and performative concept that has settled in education, try to discard the teleological framework, as it usually houses an essentialist fallacy, so they say. However, they still end up recovering the critical subject’s desideratum of education. Standish (2003), for example, showed how important it is to transcend the cloistering teleological schemes of performativity and the essentialism of short-sighted views: “teleological thinking becomes grotesque when it conceives human beings and their policies as perceptible in terms of ends that

¹ That is the case for Portugal since the promulgation Order No. 6478/2017, of July 26, ratified an educational teleology document entitled “Profile of Students Leaving Mandatory Schooling”.

are in principle achievable" (p. 227). Such criticism is important and correct when thinking about the current contexts of functionalized education to technical and economic performances, or about the totalitarian drifts of the 20th century. However –concerning the modernity paradigm–, it seems to forget that the modern concept of becoming an educated human being is asymptotic, closing indefinitely to a better state of perfection. In the modern conception, we can never assume that we are educationally finished, as we can never assign collective emancipation to a consummation date. The cited author intends to evade the teleological perfectibility scheme, turning to the Emersonian concept of perfectionism. In this line, he devises a flexible and open conception, which should nevertheless "suggest the aspiration for the best of ourselves" (Standish, 2003, p. 228).

In our view, facilitating the emergence and affirmation of personhood could represent the integrative – while ample and open-ended– central telos of the domains of education. Such axial teleological referent could be described by searching the configurative categories of the person.

Assuming the person's emergence and affirmation as the core incumbency of education, by corresponding to the person's educability, which could be taken for the unconditional central category, we obtain a referential to attribute a set of categories as constitutive traits of personhood. The "personological" plane is the highest and last because only in it the dignity of the person appears "as a conscious and impassable value" (Patrício, 1993, p. 60). Hence, education essentially consists of a personalization process. "To educate is to transform in one a person; to educate oneself is to make oneself a human person, it is to develop in oneself the human person that one is germinally. Man is not born a made person, he is born a person to be constructed and, strictly speaking, a person to be self-constructed" (Patrício, 1993, p. 141).

It seems congruent to assign identity as an eminent category of the person that burst out of the regimen of anomie by entering the realm of existence: an authentic being in the present contemplating her/his finitude, loaded with a past while projecting he/she to the future (Heidegger, 1962). Now, although we tend to begin by characterizing personhood as referring to identity, we immediately have to inscribe it in the context of a relationship with others. As we can infer from Buber's (1974) phenomenology, identity can only be understood based on the I-Thou relationship, thus making education a process of encounter (McHenry, 1997). Therefore, identity must be seen as dialogical virtue, meaning sprouting out of dialogical processes (Lopes, 2001). In the context of relational anthropology, based on the principle of the *primum est relationis*, it is possible to see how consciousness emerges from an interdiscursive process, symbolically mediated, and that the person and his identity are always the results of interlocutory relationships. No longer the subject-consciousness, solipsist, and monological, no longer language as a mere instrument of thought, but rather the relationship and language as constitutive and essential to consciousness. The person, being one of the "dialogical virtues", is relational in its genesis, structure, and development.

We cannot fully understand identity without referring to other categories. "Morin defines conscience as a reflective art (in a situation of interdependence with intelligence as a strategic art) and thought as dialogic art, as an art of conception. Human intelligence is spiritual and cultural without prejudice of being animal and individual. Thought develops through conception, which transforms the known into the conceived, speculative, practical, and technical competencies. Consciousness is understood as reflexivity, product and producer of reflection, its intentionality being shared by the object, by the knowledge process and by the states and behaviours of the knowing subject. The fact that consciousness can go back to the different planes of the unconscious does not mean –contrary to the illusions created by the spiritualization of the self-consciousness– that it can escape the dependence it maintains with the processes from which it continually emerges: consciousness is at the same time, historicized and individual." (Carvalho, 1998, pp. 37–38)

To be coherent with the above dialogical antinomic reading, we must refer to affectivity as a person category, which relates to emotions and feelings, the latter being emotions reflected (Damásio, 2012). By combining intelligence and affectivity humans can produce evaluations about reality and themselves. Hence, they can be defined as those beings of whom it is inescapable to refer to values and fulfil values. "The person recognizes himself as a value. That is why she only wants, only aims, only orders, only stems from for what is valuable. The will to learn and the will to be of the learner —of the person-learner— is the will for values: the value that he is, the value that he gives to what is given to him, the value that he gives to what he performs. Meaning, it is the appeal of value that crosses the entire interior space of the human being: value calls, within that space, for its fulfilment. This is the sense we see in Goethe's famous sentence: be who you are. This imperative is a call: it is the call to be. It is within this vocation that all vocations take place; it is within this appeal that all the appeals that arise, and urge, resound, within the interior space of a human being." (Patrício, 1993, p. 305)

As we can infer from the above citation, the person is always thrown towards perfectibility, as a utopic horizon of becoming (Carvalho, 1988, 1994a, 1994b; Kant, 2003). Man, himself must be considered as a

utopic being, a dimension that “accounts for his structural restlessness that results from his condition of incompleteness, his awareness of finitude and the appeal of perfection that he feels” (Araújo & Araújo, 2006, p. 109).

If perfectibility imposes itself as a category of personhood, we can say less of happiness, conceived as “the end of all ends” (Aristotle, 2004) or as an “ideal of imagination” (Kant, 2003), which, in a sense, are confluent ways of expressing an equal meaning. Moreover, it is to be noted that either we are compelled to conjugate perfectibility with happiness, or we may risk sliding into the deplorable case of those who, through a supposed process of education, have become experts at the cost of their happiness.

All the categories until now found ingrained in personhood cannot dispense their embodiment. For Mounier (2004), who rejects the metaphysics of the “fall” and the “body as the spirit tomb”, the body is not a simple object either; it is up to the body to teach us the meaning of spatiality and temporality, as well as the weight imposed by the natural realm. Thus, we must understand the body’s functions of continually supporting and mediating the life of the spirit.

The person’s emergence and affirmation claim for another constitutive category of the humans’ mode of existence—in the Heideggerian sense—a postulated possibility of freedom (Kant, 1898) and the “power of will” to grant it (Scheler, 1960). The tessitura of categories we have brought forth through my analytic has just unveiled another category intrinsic to personhood, namely ethics. We must refer to the human ethical experience as implying a free willingness for intuiting, capturing, estimating, and realizing values. Such process must develop within the context of responsibility and reciprocity towards oneself and others, including the “more than human”, so to achieve a kind of “ecojustice”, that could be fostered by an “ecojustice education” (Martusewicz, Edmundson, & Lupinacci, 2011), which means an education that would have to go beyond anthropocentric and neoliberal economic growth narratives (Fremaux, 2017). Or, as Biesta (2015b) argues, the conjugation of the educational domains of purpose implies a kind of formation that motivates a quality personal growth through an encounter with others, including the world as a whole. This means to go beyond the “egological” mode of being and enter a “non-egological” posture, which takes a kind of pedagogy of interruption, interpolating the purposes of the current dominant regimen.

In the process of growth, the person can configure a certain personality expressed by a character that is *constructed* from the ethical relationship and *specifies* the person (Boavida, 2005), becoming essential to the person’s affirmation and being enabled by the structuring of competencies I have specified above (Tough, 2012). With Boavida (2005), we would say that education will always aim to achieve the humanization that, by the continued incorporation and realization of values, is likely to get closer to achieve the fullness of the person. It is concerning it that we will understand the character as a way of specification that is, as Boavida (2005) has explained, the way of being by which the person appropriates his existence so that the educative and the uneducative will be appreciated, considering the impact that is verified to have a certain influence upon the person’s character.

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Digital Games Designed By Prospective Teachers in The Scratch Program Through The Eyes of Mathematics Teachers

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Abstract

Scratch is an effective programming tool encouraging problem-solving skills of middle school students with the help of its advantages as its ease, richness of their visual characters and all their objects, as well as processing skills. In particular, the fact that research has shown that teaching with Scratch has positive effects on students' mathematical achievements in algebraic expressions indicates that a different teaching method can be used in the field of algebra learning. Therefore, it is believed that the use of mathematics teachers in the lesson by learning this program before service contributes to the students' learning and love of mathematics. The aim of the research is to examine the views of mathematics teachers about the games designed by the prospective teachers with the program of Scratch. The participants of this study, in which the case study was conducted, were six mathematics teachers. The research process was carried out in three stages. In the first stage, 13 games were designed by prospective teachers about achievements in algebraic expressions. In the second phase, six mathematics teachers were asked to score these games according to the revised rubric of Li et al (2013). In the third stage, teachers' views about the reasons for the scores that they gave to the games. Kappa coefficients were calculated for the scoring compliance among teachers. Qualitative data analysis techniques were used in the analysis of teacher views. In this study, it was revealed that most teachers found the games interesting, comprehensible and instructive/reinforcing. Some teachers found the games original, while others stated that they were classic games that they often encountered. In addition, some teachers emphasized that they could use these games in their lessons, while others stated that they could not use them in their lessons for reasons such as missing instructions, code errors, and lack of knowledge of the Scratch program.

Keywords: Algebra Teaching, Mathematics Teacher, Prospective Teacher, Scratch

Introduction

With the development of technology that has existed for the centuries in human life, it has become indispensable for people to benefit from this technology. The use of technology in education, which has become a part of our daily life, has also become inevitable (Altın & Kalelioğlu, 2015; Kaya, 2019; Yelbay, 2015). This enabled examination for solutions regarding the issue (Keçeci, Alan, & Kırbağ-Zengin, 2018). According to Akçay and Sayar (2019), technology shows its place in education by making teaching permanent, meaningful and enjoyable, and by differentiating the education-teaching environment. In relation to these, the use of technology in education has provided great convenience and benefit. As an example, Tarman and Baytak (2011) stated that in classrooms, teachers use projectors in addition to the blackboard for visual lesson processing and give students homework to use computers to access wider resources. It can be said that programming and algorithms are mostly used in web-based applications, which are widely used in courses. In addition, as of 2017, technology-supported trainings such as algorithm coding and web programming have been started to be given to students with the CODE Name 2023 project in the youth centers of the Ministry of Youth and Sports in the provinces (Başarmak & Hamutoğlu, 2019). According to Baki (2014), when a problem is encountered, the steps that determine the solution stages and

process steps in order to reach a solution are called algorithms. The language used in algorithm teaching is spoken language. Because it is easy to understand without being tied to any programming language. The commands given during the algorithm should be clear, understandable and short (Cited in Arabacıoğlu, Bülbül, & Filiz, 2007).

According to the Turkish Language Association [TLA] (2017), the program is a “set of commands written to make the computer do an operation”, while programming is not only an application software, but also a complex program that targets students' thinking skills and makes a great contribution to their cognitive development and it is defined as a process (Kert & Uğraş, 2009). According to Ersoy, Madran, and Gülbahar (2011), programming is a production process that requires the use of many skills and provides a meaningful whole by bringing together different information. It can also be mixed and abstract etc. It is among the difficult skills to acquire due to its characteristics. Before designing the program, the person dealing with program development creates an algorithm, evaluates it and transfers it to the computer gradually. For this reason, algorithms create the environment for how the transfer of the problem to the computer will take place. The main purpose of solving algorithm problems is to perform basic programming operations such as variable definition and value assignment, decision making, array creation, control structures, counter and loop structures, which are the basic structures of programming. Many of the students have difficulties due to the abstract nature of these basic structures (Lahtinen, Ala-Mutka, & Jarvinen, 2005). Initially, while programming, a solution to the identified problem should be produced. Then, a way must be found to create communication pattern using this solution by using computer. In this pattern, attention should be paid to understanding thoughts clearly, the perfect grammar and terms. (Papert, 1980; Szlávi & Zsakó, 2006). According to Pala and Mihci Türker (2019), the importance of programming education has started to be noticed more and more in recent years, and studies have been carried out to provide students with programming knowledge. Regarding this programming education, Information Technologies and Software lessons have been started to be given to the students studying at secondary school in 2012, starting from the 5th grade. In addition, it can be said that in recent years, the Higher Education Council (HEC) Teacher Training Program (2018) has given algorithm and programming courses to mathematics teacher candidates studying at the university, which is of great importance in this context.

Akbay, Ataş, and Turan (2015) stated that the programming course has become a part of education as a course adopted by expert educators. Within the scope of these explanations, “Problem Solving, Programming and Original Product Development” is said to be one of the learning areas of the program published by the Board of Education (Ministry of National Education [MoNE], 2017). In this context, it has been determined to gain some skills in the mentioned learning areas and it has been said that Scratch is one of the software that will enable these skills to be gained (Çubukluöz, 2019). At the same time, Scratch has come to the fore as a program recommended for students who are new to coding education or have difficulties (Guzdial, 2004). The dictionary meaning of Scratch is known as scratching and drawing that's why the logo and character consist of a cat (Keçeci et al., 2018). The Scratch program was designed by the Massachusetts Institute of Technology (MIT) in 2007 to teach coding to individuals of all age groups. The program of Scratch, which is an educational programming tool, is a more suitable tool for expressing ideas on educational issues compared to the old programming languages. At the same time, the Scratch programming tool, in addition to its ease, is an effective tool on the reasoning abilities of individuals at the primary school level with the visual characters and objects of Scratch (Shin & Park, 2014). It is an interactive interface program that works visually with drag and drop logic and a block-based free coding tool (Yılmaz, 2019). The content of the interface program is given in Figure 1.

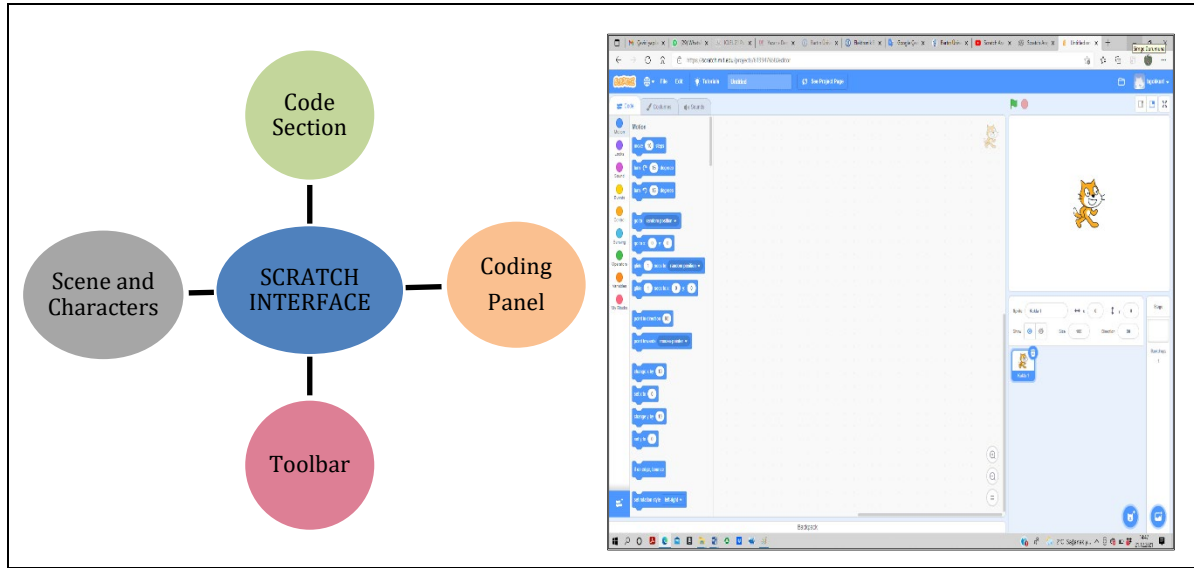


Figure 1. Interface of Scratch Program (Çağiltay & Fal, 2013)

According to Figure 1, Scratch consists of four basic parts. These are: i) Code section: There are nine command blocks consisting of different colors: motion, appearance, sound, events, variable, control, detection, my blocks and operator. ii) Coding Section: The code consists of three sub-sections: costumes and sounds. iii) Scene and Character: The stage is where the puppet is located and the events take place. In addition, there are signs that allow the start and stop of the event in the upper right part of the stage. iv) Toolbar: It contains many options such as language settings, saving work, file, editing, help, adding and deleting characters, scene size and sharing tabs. When a program coded on a sound block is run in the program of Scratch, provided that the algorithms are properly sequenced, the sound desired to be heard in the real environment is heard or moved by the options on a dummy console on the screen. With the help of explained features of the program, it is ensured that users gain or develop high-level skills such as problem solving, analysis, creativity, systematic and divergent thinking (Çatlak, Tekdal, & Baz, 2015). Considering the importance of these skills in daily life, it has been observed that individuals who are more successful in coping with difficulties and reaching their goals are individuals with high-level thinking skills (Yüksel, 2015). According to Aksoy and Küçük-Demir (2019), the use of digital media in mathematics education is one of the important features that increase the level of creative thinking. It is seen that different and creative thinking, which has been mentioned recently, has great importance in investigating reasoning approaches in mathematics education in many respects (National Council of Teachers of Mathematics [NCTM], 1989).

Students have difficulties in learning mathematics (Öztop & Toptaş, 2017). Mathematics is more abstract compared to other fields (Dienes, 1971; Frenkel, 2013; Sarama & Clements, 2009). This situation causes difficulties in learning and teaching mathematics (Ramani & Patadia, 2012). Technological tools have an active role in concretizing mathematical concepts. Especially young children are not ready to work with abstract concepts in terms of their cognitive development. Therefore, if children in this period are taught using technological tools suitable for their cognitive levels, a students' mathematical development can be accelerated and their motivation to learn advanced mathematical concepts can be increased (Köse Yavuzsoy, 2008). Students no longer enjoy working with traditional methods, but with teachers who use technology in their lessons (Özgen & Obay, 2008). In this context, societies that adopt the traditional understanding of education have difficulties in raising qualified individuals (Obut, 2005). Taşlıbeyaz (2010) and Gelibolu (2009) stated that the use of technology in mathematics teaching determined that it helps to concretize abstract concepts, saves time in the lesson, and increases the students' interest in the lesson. With the increase in the use of technology, research in the field of digital game-based learning has also increased (Sarıçam, 2019). Chuang and Chen (2007) concluded that when educational games are used, the subject to be taught can be given more easily and contributes to the development of high-level thinking skills. Offering meaningful experiences to its users with games, task steps and scenarios that leave a mutual impact; they are entertainment tools that attract more attention to their users with their visual components and sound designs (Varinlioğlu, Alankuş, Aslankan, & Mura, 2019). The most important factor in making digital games interesting is having fun (Kiili, 2005). According to Prensky (2001), there are many reasons

why people who play digital games enjoy it and are highly preferred. These games have goals and rules, games give feedback, provide socialization by interacting with other players, and contain a story. One of the prominent games among these games is educational games.

Educational games are games that are used to achieve learning goals and provide learning experiences (De Freitas, 2006). The main goal in educational digital games is to enable students to learn the concepts and information about the subject hidden in the game (Aksoy, 2014). Gee (2014) found it interesting that people insist on passing the part where they have difficulty in computer games and stay in front of the computer for a long time in order to pass that part. For this reason, Gee said that when computer games are used in the teaching, students can learn the subject by having fun. Games are used effectively in many disciplines. One of these disciplines is mathematics. The use of game-supported method in teaching mathematics was found interesting and instructive, especially for primary and secondary school students (Çakmak, 2000). As an example, some studies support the view that block-based games designed with the program of Scratch benefit teachers and students in algebra learning areas, which are thought to be difficult to learn in mathematics lessons. At the same time, these games designed in a digital environment positively affect the success of students in algebra (Mercan & Aktaş, 2018). According to Akkaya (2006), algebra is an important learning area that always takes place in our lives in understanding the problems encountered in daily life and producing solutions for these problems.

Algebra, which is related to many subjects of mathematics, is an important focus for teaching mathematics at all levels (Lacampagne, 1995). Because the algebra learning process actually starts from arithmetic operations in primary school and then goes to function knowledge. Therefore, if algebra is not learned well in primary and secondary school, it is inevitable to experience problems in gaining further mathematics skills (Eski, 2011). According to Usta and Gökkurt Özdemir (2019), algebra has great contribution to the development of mathematical thinking. Students have difficulties in understanding the concept of variable when they enter the field of algebra learning (Akgün, 2007; Dede, Yalın, & Argün, 2002; Soylu, 2008; Yalvaç, 2019). Akkaya and Durmuş (2006) stated that the reason for these difficulties is that students do not understand the rules used in arithmetic well and they have misconceptions in operations related to arithmetic. Another reason was stated as students' solving algebra questions without understanding them by heart (Dede & Argün, 2003). Mercan (2019) emphasized that in teaching algebraic expressions and integers in 6th grade with the help of Scratch program, is of great importance in terms of its effect on a students' motivation, success and permanence of knowledge. It can be said that the reason for this is that an abstract subject such as algebra is made concrete by using the Scratch program instead of the plain expression method, and the student learns by doing and experiencing. The more sense organs the person in the learning position uses, the faster the learning takes place, the easier it is to teach and the more permanent it becomes (Çelik, 2007). In this context, the program of Scratch, colorful visuals, simulation, music, educational games, etc. is used in lessons because it contains elements (Mercan, 2019). It should consider the principle that using visualization in the teaching of mathematics course can affect students positively in the affective and cognitive areas, and visualization should be used in mathematics education from the first to the last stage of primary education (Tutkun, Öztürk, & Demirtaş, 2011). At the same time, teaching materials are the knowledge, skills and attitudes, etc. that help learning and are desired to be gained for students. It is one of the tools used for the development of the items (Sarıtaş, 2007). In particular, it will be beneficial to use more than one teaching method in mathematics lessons, to provide students with the opportunity to understand mathematics, and to develop and use materials to distract students from rote learning (İnan, 2006).

When the literature is reviewed, it has been seen that there are limited studies (Mercan & Aktaş, 2018; Mercan, 2019; Öztürk, 2021) using the program of Scratch and the algebra learning field together, but no study has been found on the pre-service teachers' designing games in the field of algebra learning in the Scratch program. However, the use of teaching materials is an important element in increasing the quality of teaching by attracting a students' attention, ensuring their participation in the lesson, getting feedback, etc. Teaching materials are helpful in the realization of many behaviors. Teaching materials are tools that help teachers to convey information to students (Şahin & Yıldırım, 1999). In the learning process, the use of effective materials will increase the quality and communication in education (Alkan, 1984). These tools and materials used to support learning will make students more willing to learn, and as a result, their success in the lessons will increase. If the acquisitions that should be given to the students is in line with the objectives of the course and are supported with visual and auditory materials, a solid learning will occur (Ertaş, 2006). In this context, it can be said that when the materials used to support teaching are well designed, it facilitates learning by providing reality in the comprehension of what is taught. Gürman (2019) stated in his research that the technology-supported material designed facilitates the learning of students. The Digital Education Plan (2021-2027) emphasizes the development of teachers' digital skills in education and training (https://ec.europa.eu/education/education-in-the-eu/digital-education-action-plan_en). One

of the 21st century skills is digital skills, and these skills enable individuals to respond to the requirements of the century, to sustain their lives and to be productive, could be acquired through education (Belet Boyacı & Güner Özer, 2019). In this respect, it is thought that it is necessary for teachers to acquire effective digital material design skills before they graduate from teacher training programs. In this study, a digital game about algebraic expressions was designed for prospective mathematics teachers in the program of Scratch, and the opinions of mathematics teachers about the games that they designed were taken. The fact that the digital games designed in this study are an instructive resource for students who have problems with algebraic expressions reveals the importance of the research. In addition, students who have negative attitudes towards algebraic expressions can increase their interest in the lesson by playing these digital games.

Method

In this study, the case study method, as one of the qualitative research methods, was used. A case study is a methodological study that uses multiple data collection to demonstrate the functioning of the limited system and how the study progresses (Chmiliar, 2010). In the case study, a case is investigated in depth and results related to the case are revealed (Yıldırım & Şimşek, 2008). In the research, using the program of Scratch, the design of digital games related to algebraic expressions in mathematics education and the opinions of teachers about the material were taken, it was deemed appropriate to use this method.

Participants

The participants of the research consisted of 6 mathematics teachers who were actively working in different state secondary schools in the Western Black Sea Region, which differed in socio-economic terms. appropriate sampling method, one of the purposeful sampling methods, was used in the selection of teachers. In addition, different lengths of service were taken into account in the selection of teachers. Considering the service period of the teachers, the service period varies between 2-20. The reason why the participants were selected according to different criterias can be shown as the desire to obtain data diversity and richness of results. On a voluntary basis, consent forms were obtained from the teachers, indicating that they participated voluntarily. In terms of the ethics of the research, codes such as T1, T2...T6 were used instead of the real names of the teachers. The service periods of the teachers were as follows: T1: 6 years; T2: 2 years; T3: 12 years; T4: 20 years; T5: 8 years and T6: 7 years. Necessary information was given to the teachers by the researchers about the purpose and content of the study. The teachers were told that this study would only be used for scientific purposes, and it was emphasized that their identity information would be kept confidential.

Data Collection Tool

As the data collection tool, the Pedagogical Rubrics revised by Li et al. (2013) was used to determine the levels of pedagogical themes in games. A semi-structured A Teacher Interview (TIF) form was used regarding the reasons for the evaluations made by the teachers. The interviews were conducted individually.

Design Process of Digital Games

Before deciding on the subject on which the Scratch program will be used, the researchers made a needs analysis in the first stage.

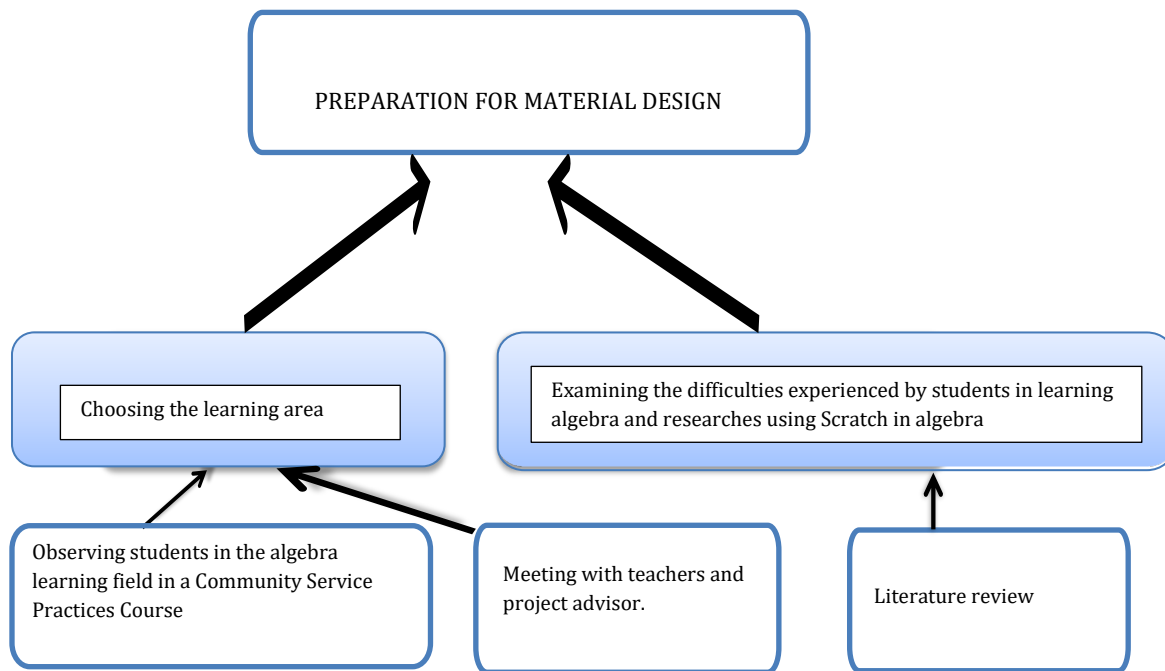


Figure 2. Needs Analysis

As a result of the needs analysis in Figure 2 and the studies in the literature, it was decided to choose the algebra learning area as the learning area. When the literature was examined, it was seen in many studies that students had many mistakes or misconceptions about the area of learning algebra (Akkan, Baki, & Çakıroğlu, 2012; Akkaya & Durmuş, 2015; Çelik & Güneş, 2013; Yıldız, Koza Çiftçi, Şengil Akar, & Sezer, 2015). In addition to these, studies was found in which teaching using Scratch software contributed to the success of students in learning Numbers and Operations (Çubukluöz, 2019), Algebra (Mercan, 2019) and Geometry (Iskrenovic-Momcilovic, 2020). The fact that the students were generally unwilling and forced to use algebraic expressions during the classroom observations and interviews with the teachers also strengthened this decision.

After the subject was decided, the design process of digital games was started. At this stage, the literature on the program of Scratch was searched and the views of a faculty member who had a doctoral thesis in mathematics education and Scratch on how to prepare digital games on the subject of algebraic expressions in Scratch were consulted. The fact that the researchers received training on the program of Scratch in the Algorithm and Programming course they took in their undergraduate education and that one of the researchers had publications in the field of Scratch facilitated the design process of digital games. In the coding process of the games, attention was paid to include the elements of the games. In addition, it is aimed to create designs that will increase competition among students, encourage them to get the highest score and provide motivation for the mathematics lesson.

During the design process, the researchers presented the games they designed to a faculty member who was an expert in mathematics education and Scratch, and made the necessary corrections in the digital games (eg, the instructions were not clear, the difficulty levels of the questions in the games were the same) in line with the expert opinions. In the study, a total of 13 digital games were designed by the researchers, and the numbers of curriculum objectives (MoNE, 2018) and links of these games are given in Figure 3. Screenshots of some games are also given in Appendix 1. G1, G2, ...G13 codes are used for games.

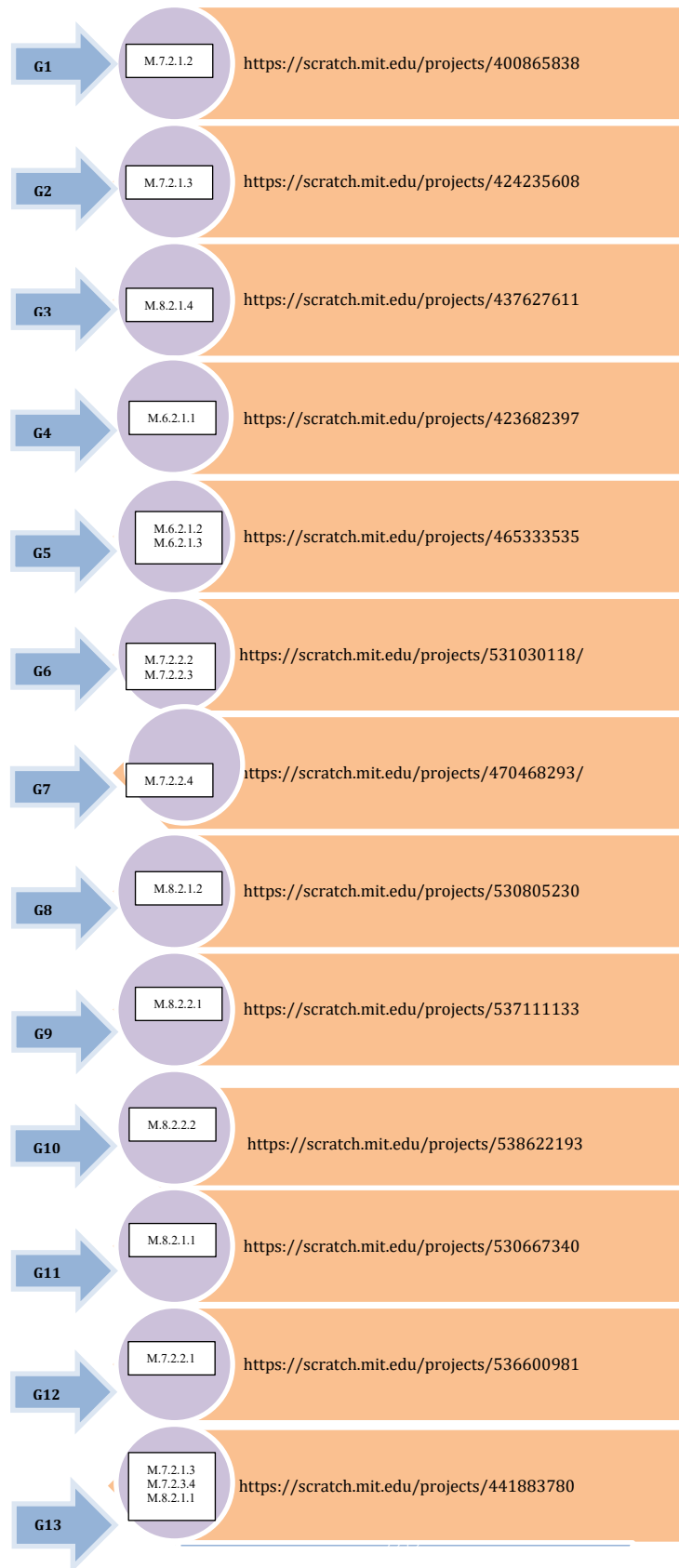


Figure 3. Games Designed for the Achievements in Algebraic Expressions and Links to the Games

Six mathematics teachers were asked to evaluate these digital materials related to the games designed by the pre-service teachers who were in the role of researchers. In this context, the revised Pedagogical Rubric by Li et al. (2013) was used as a data collection tool. In this rubric, there are 13 themes (Problem Solving,

Exploration and Reasoning, Connection, Strategy, Participation, Interesting, Comprehensible, Educational and/or Reinforcing, Evaluation, Usage, Level, Originality, Duration) and criteria are Less Sufficient (1 point), Sufficient (2 points) and Very Sufficient (3 points). According to these criterias, the highest score a game can get is 39 (13x3=39), while the lowest score it can get is 13. (13x1=13). Teachers were given two weeks for evaluation. After the teachers scored these designed digital games, interviews were held with the teachers regarding the reasons for the scores they gave to these games. Cohen Kappa coefficients were calculated for the concordance level of scoring among teachers (See Table 1). If the Kappa coefficient is less than or equal to 0.20, “poor agreement”, between 0.21-0.40 “low agreement”, between 0.41-0.60 “moderate agreement”, between 0.61-0.80 “good agreement” and 0.81-1.00 between them is interpreted as “very good agreement” (Landis & Koch, 1977). When the scores of the six mathematics teachers in Table 1 were examined in pairs, generally weak agreement, below-average agreement and moderate agreement were found. Good agreement between T2 and T4 emerged for the G11 game only. Based on this result, it is seen that mathematics teachers' evaluations of games are different.

Table 1. Kappa Values Regarding the Levels of Concordance of Scores Among Mathematics Teachers

TCHRs	Value of Kappa												
	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12	G13
T1*T2	-.121	.047	-.076	-.018	-.054	-.024	-.006	.000	-.016	-.174	-.050	-.044	-.056
T1*T3	-.074	-.070	-.057	.023	.027	.044	.082	.006	.013	.064	.013	.027	.014
T1*T4	.175	.071	.086	.116	-.014	-.024	.043	-.006	-.037	-.037	-.026	.065	-.047
T1*T5	.099	.044	-.040	-.202	-.045	.044	-.071	-.073	-.026	-.026	.088	-.140	-.156
T1*T6	.248	.034	-.122	-.044	-.037	-.010	-.075	.014	-.045	-.045	-.068	.017	-.139
T2*T3	.420	.097	.028	.085	.133	.119	.235	.000	-.106	.133	.148	-.182	-.066
T2*T4	.387	.387	.243	.058	.187	-.182	-.046	.000	.464	.071	.658*	.369	.519
T2*T5	-.102	.093	.142	-.068	.173	-.102	-.020	.000	.019	.266	.330	.297	.264
T2*T6	.157	.152	.187	-.123	.226	-.130	-.182	.000	.157	.254	.286	.409	.388
T3*T4	.278	.019	.010	.032	.156	-.102	-.024	-.083	-.061	-.152	.133	-.034	.097
T3*T5	-.222	-.130	-.444	-.444	-.268	-.300	-.238	-.147	-.147	-.182	.235	-.282	.177
T3*T6	.055	.071	-.287	-.051	-.102	-.444	-.477	-.114	-.138	-.209	.052	-.232	.268
T4*T5	.289	.055	.117	.090	.090	.339	.079	.071	.270	.124	.435	-.369	.150
T4*T6	.350	.387	.010	.179	.350	.152	.081	.088	.323	.187	.458	-.093	.429
T5*T6	.366	.323	.204	.117	.052	.198	.114	.085	.409	.409	.103	.228	.356

Content analysis technique was used in the analysis of the interview findings with the teachers. Data from content analysis “Word cloud” technique was used to visualize and make it more understandable. The purpose of visualizing data are not to make it aesthetically beautiful, but to make it understandable. Visualization provides quick information to people who are interested in the subject (Fronza et al. 2013). In this context, word clouds were created in the WordArt application related to the codes of the interviews. For the reliability of the research, the interview data were coded separately by two researchers. It was determined that the fit calculated by considering Miles and Huberman's (1994) agreement percentage was fully achieved.

Findings

In this section, the findings of the research are given under two headings. The first heading represented the findings related to the scores of mathematics teachers for the games designed by pre-service teachers. The second one included the findings related to the explanations of the mathematics teachers about the reasons for their scoring.

Findings on Mathematics Teachers' Evaluations of Digital Games Designed by Pre-service Teachers

Table 2. shows the findings of mathematics teachers' evaluations of 13 themes in the pedagogical rubric

Table 2. Findings Regarding the Evaluation of Digital Games According to Themes in the Pedagogical Rubric

Cgs	PS	EnR	Co	S	P	I	Cm	E/R	Ev	U	L	O	D
	Cs	Ls S Vs	Ls S Vs	Ls S Vs	Ls S Vs	Ls S Vs	Ls S Vs	Ls S Vs	Ls S Vs	Ls S Vs	Ls S Vs	Ls S Vs	Ls S Vs
Cn	Frequency (f)												

1	1	3	2	5	1	-	5	-	1	4	2	-	2	2	2	1	1	4	-	3	3	-	3	3	-	3	3	4	1	1	1	1	4	4	2	-	1	1	4
2	1	1	4	2	2	2	4	1	1	3	2	1	1	2	3	-	3	3	-	2	4	-	1	5	1	2	3	1	1	4	1	-	5	2	2	2	-	1	5
3	1	2	3	2	2	2	2	3	1	3	2	1	1	2	3	-	1	5	-	2	4	-	2	4	1	1	4	1	3	2	1	1	4	2	2	2	3	1	2
4	-	2	4	2	2	2	-	2	4	2	2	2	2	1	3	-	1	5	1	1	4	1	2	3	1	2	3	1	3	2	1	1	4	2	2	2	-	1	5
5	1	2	3	3	2	1	2	2	2	3	2	1	-	1	5	-	1	5	-	3	3	1	1	4	1	2	3	-	3	3	1	-	5	1	1	4	1	1	4
6	-	2	4	1	3	2	-	2	4	1	3	2	-	2	4	-	2	4	1	1	4	-	2	4	-	2	4	1	2	3	1	-	5	1	1	4	-	1	5
7	-	3	3	1	2	3	1	3	2	1	3	2	-	4	2	-	2	4	-	2	4	-	2	4	1	2	3	2	2	2	1	2	3	2	2	2	-	1	5
8	-	2	4	1	3	2	-	2	4	1	2	3	-	1	5	-	1	5	-	1	5	-	2	4	-	2	4	-	2	4	-	1	5	1	1	4	-	1	5
9	1	2	3	2	3	1	2	3	1	3	2	1	-	2	4	-	3	3	-	2	4	-	2	4	-	1	5	-	2	4	1	-	5	1	2	3	-	1	5
10	1	3	2	2	3	1	1	3	2	3	2	1	1	2	3	1	3	2	-	1	5	-	2	4	1	1	4	1	2	3	1	-	5	1	3	2	-	1	5
11	1	2	3	3	2	1	3	3	-	3	2	1	1	1	4	1	1	4	-	1	5	-	2	4	-	1	5	1	-	5	1	-	5	2	2	2	-	1	5
12	1	3	2	2	3	1	4	1	1	2	3	1	1	1	4	-	3	3	-	2	4	-	2	4	1	2	3	2	1	3	-	1	5	1	3	2	-	1	5
13	1	2	3	3	2	1	2	2	2	3	2	1	-	2	4	-	1	5	-	1	5	1	1	4	-	2	4	-	1	5	-	1	5	1	4	1	-	1	5

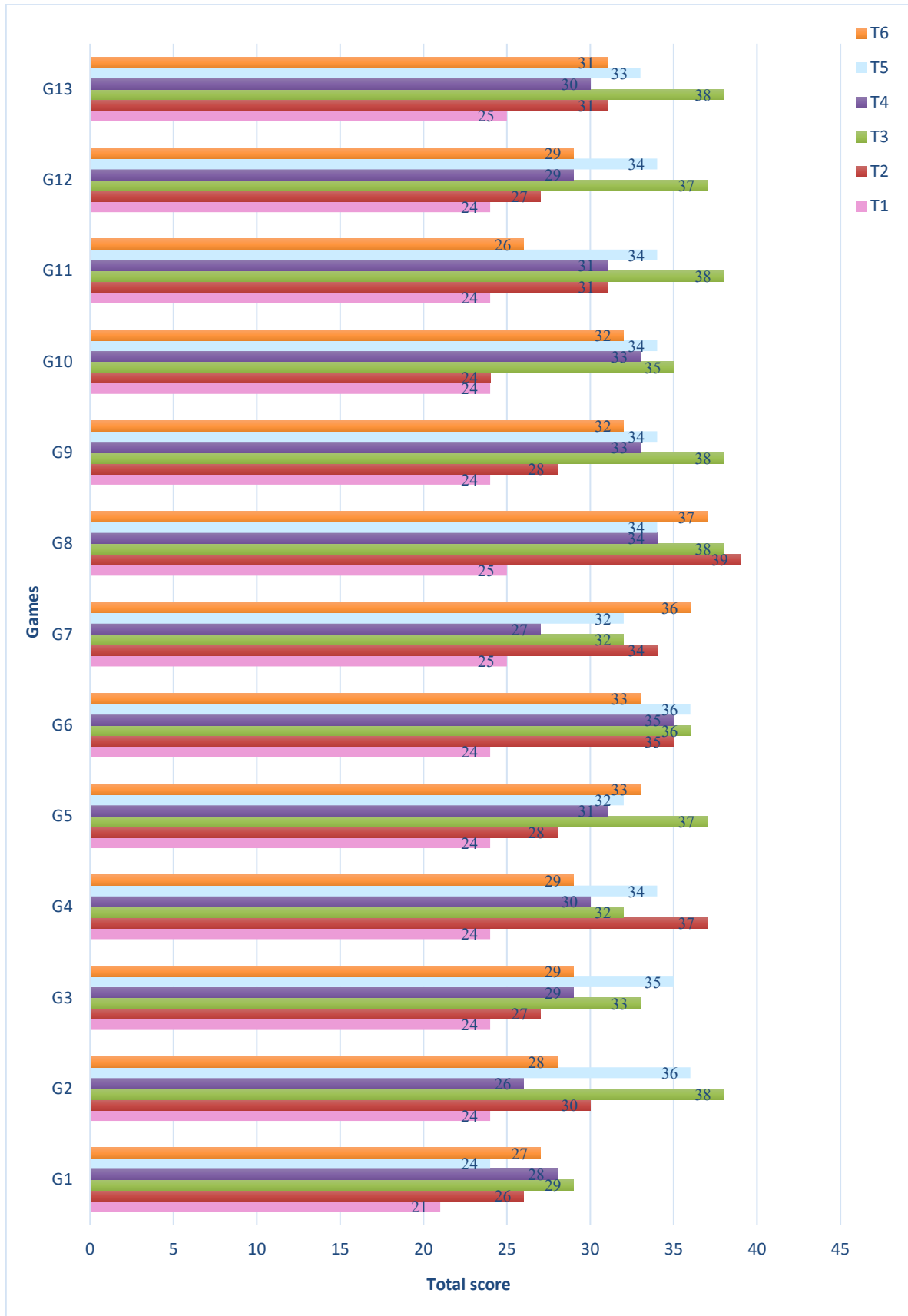
PS: Problem solving, EnR: Exploration and Reasoning, Co: Connection, S: Strategy, P: Participation, I: Interesting, Cm: Comprehensible, E/R: Educational and/or Reinforcing, Ev: Evaluation, U: Usage, L: Level, O: Originality, D: Duration, Ls: Less Sufficient, S: Sufficient, Vs: Very Sufficient, Cs: Competence Status, Cgs: Categories, Gn: Game number

According to Table 2, it is striking that the teachers mostly found the games coded G6, G8 and G13 very sufficient. On the other hand, it is seen that teachers find the G1 coded game less sufficient. According to Table 2, when the answers given by the teachers to the theme "Problem solving" are examined, it is striking that the games coded G2, G4, G6 and G8 are very sufficient.

When the answers given by the teachers to the theme "Exploration and Reasoning" are examined, it is noteworthy that the games are generally found to be less sufficient. When the answers given by the teachers to the "Connection" theme are examined, it is seen that the G1, G2 and G12 coded games are found to be less sufficient. When the answers given by the teachers to the "Strategy" theme are examined, it is noteworthy that the games are generally found to be less sufficient. The G8 coded game was found very sufficient by three teachers. When the answers given by the teachers to the "Strategy" theme were examined, they generally found the games sufficient and very sufficient. G1, G2, G3, G4, G10, G11 and G12 games were found to be less sufficient in this category. Only three games were found to be less than sufficient. These games are G1, G10 and G11 coded games. When the answers given by the teachers to the "Comprehensible" theme were examined, all but two of the games were found to be sufficient and very sufficient in the intelligibility category. Games that are found to be less sufficient are G4 and G6 coded games.

When the answers given by the teachers to the theme of "Educational and/or Reinforcing" were examined, most of the games were found to be sufficient and very sufficient in the category of Educational and/or Reinforcing. Only three games were found to be less than sufficient by the same participant. The less adequate games are G4, G5 and G13. When the answers given by the teachers to the theme of "Evaluation" were examined, most of the games were found to be very sufficient and sufficient. Games that were found to be less sufficient are G2, G3, G4, G5, G7, G10 and G12 coded games. When the answers given by the teachers to the theme of "Usage" were examined, most of the games were found sufficient and very sufficient. In this category, the game coded G1 was found to be less than sufficient by four participants. When the answers given by the teachers to the "Level" theme were examined, it was seen that most of the games were very adequate. Only G1, G3, G4 and G8 coded games were found sufficient. When the answers given by the teachers to the theme "Originality" are examined, it was seen that the G1 coded game was found to be less sufficient. When the answers given by the teachers to the "Duration" theme were examined, it was seen that the games were very sufficient in terms of time. Table 3 presents the findings regarding the total points given by six mathematics teachers to 13 digital games according to the Pedagogical Rubric.

Table 3. Findings Regarding the Total Scores of the Digital Games from the Pedagogical Rubric as a Result of the Evaluation made by the Mathematics Teachers



G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12	G13
Aritmetic Mean												
25.83	30.33	29.50	31	30.83	33.17	31	34.50	31.50	30.33	30.67	30	31.33



Figure 5. The Word Cloud of Exploration and Reasoning Theme

As can be seen in Figure 5, as the reason for the scores that the teachers gave to the exploration and reasoning theme in the games; They expressed opinions in the codes that it is suitable for the learning outcome, the game has only one solution, it includes exploration, it contains errors and it does not include discovery. Especially the G1 coded game was found to be less sufficient by all teachers except one teacher. When the reasons why the games were found to be insufficient, they stated that they could not see any situation in terms of exploration for the G3 coded game, but since the balls falling from the air required decision-making in a certain time, the students would improve their quick reasoning ability. For the G12 coded game, it was mentioned that the scale model activities could be given more space and therefore, the students could learn the relationship between the "conservation of balance" and the "equal" sign more meaningfully. When the reasons why the games were found to be sufficient were examined, it was stated that if the games were developed, they could be very sufficient for exploration and reasoning. They stated that for the G12 coded game, it was quite suitable for exploration in terms of design, but the game could not be completed due to the deficiencies in code blocks and puppets. In the games, the explanations made by the teachers regarding the connection theme are combined in common codes and given as a word cloud in Figure 6.



Figure 6. The Word Cloud of Connection Theme

As can be seen in Figure 6, as the reason for the scores given by the teachers to the connection theme in the games; They expressed opinions in the codes of being different puppets, containing environmental awareness, being associated with daily life, having arithmetic thinking, not including different disciplines, not being associated with daily life and having deficiencies. G4, G6 and G8 coded games were generally found to be very sufficient. When the reasons why these games were found to be very sufficient were examined, it was stated that for the G4 coded game, the presence of story content in the game would arouse interest in the students and the game was suitable for the students' daily life experiences. He stated that for the G6 coded game, choosing situations from daily life and supporting the problem situations used with visuals would be effective for the student to make connections. For the G8 coded game, it was stated that it is related to daily life and is a very good game for the development of environmental awareness. G1, G2 and G12 coded games were generally found to be less sufficient. Examining the reasons why these games were found to be less than sufficient, it was stated that there was no connection with daily life for these games and no connection was made with different lessons for the G12 game. In the games, the explanations made by the teachers regarding the strategy theme are combined in common codes and given as a word cloud in Figure 7.

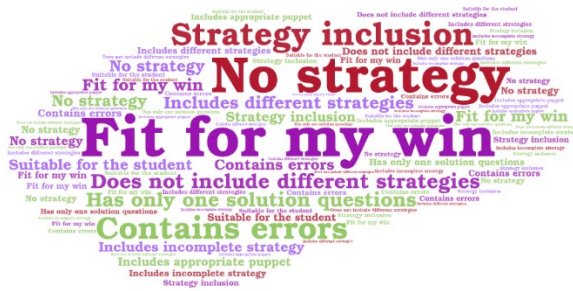


Figure 7. The Word Cloud of Strategy Theme

As can be seen in Figure 7, as the reason for the scores given by the teachers to the strategy theme in the games; They expressed their opinions in the codes of being suitable for the student, containing different strategies, being suitable for the learning outcome, containing appropriate puppets, containing errors, being one solution, and incomplete strategies. G1, G2, G3, G5, G9, G10 and G11 coded games were generally found to be less sufficient. When the reasons why these games were found to be less sufficient were examined, it was stated that there was no situation to reveal different strategies, there was no situation that allowed the student to develop a strategy, and it was based on a single method. When the reasons why these games were found to be very sufficient were examined, it was mentioned that they were open to the use of different methods and were suitable for the strategy for the target and behavior. In the games, the explanations made by the teachers regarding the participation theme are combined in common codes and given as a word cloud in Figure 8.

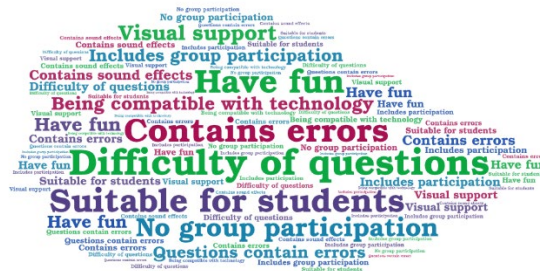


Figure 8. The Word Cloud of Participation Theme

As can be seen in Figure 8, as the reason for the scores given by the teachers to the participation theme in the games; They expressed their opinions in the codes that it is visually supported, suitable for technology, entertaining, includes group participation, suitable for students, questions that are difficult, does not include group participation, and contains errors. G1, G2, G3, G4, G10, G11 and G12 games were found to be less sufficient in this theme. The reasons why these games were found to be insufficient were stated as the difficulty of progressing the game for G1 and not using the direction keys instead of the movement keys w, a, s, d. It has been stated that the emphasis on individuality for G2 and the constant repetition of the questions in the game will negatively affect participation. It was stated that the questions for G3 should start from simple. For G4, it was stated that the presence of mistakes in some questions would decrease the participation of the students. It was stated that the absence of a lecture section for G10 and the absence of the class's views would reduce participation. For the G11, it was thought that being individual would be an obstacle to participation. It has been stated that the emphasis on individuality for the G12 will reduce participation. In general, the reasons why the games are sufficient are stated as follows. It has been stated that the visuals and stories of the games will support participation in the lesson. It was stated that the games being computer games, the selection of cartoon characters, and the various visual and auditory elements used would attract the attention of the students. It is stated that there are games that will ensure the participation of the whole class with visual effects and selected problems. In the games, the explanations of the teachers about the interesting theme are combined in common codes and given as a word cloud in Figure 9.



Figure 9. The Word Cloud of Interesting Theme

As can be seen in Figure 9, as the reason for the points given by the teachers to the interesting theme in the games; They expressed opinions in the codes that it contains story text, technology-oriented, interactive narration, interesting content, visually supported, auditory support, cartoon characters and not different expressions. Most of the games were found sufficient and very sufficient in their interesting theme. Only three games were found to be less than sufficient. These games are G1, G10 and G11 coded games. The reasons why these games were found to be less sufficient were stated that there should not be a lecture part for G10, the lecture part was too long, and this situation could cause the students to get bored. It is also stated that adding sound and effects to the game can make the game more interesting. For G11, it was thought that students could ask why crab ate hamburger. It was stated that the reasons why the games were found sufficient were that the visual, auditory and interactive nature of the games made them interesting. It was stated that the use of mutual conversations and the context and story text in the game would attract the attention of the students. In the games, the explanations made by the teachers regarding the understandable theme are combined in common codes and given as a word cloud in Figure 10.

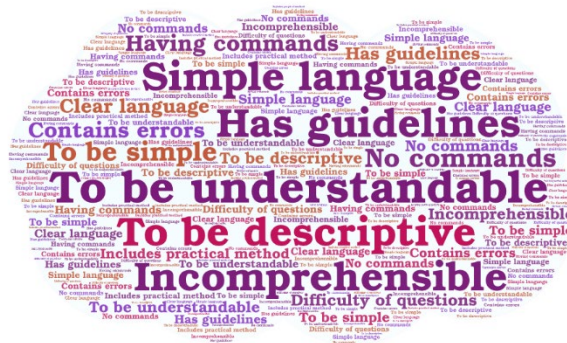


Figure 10. The Word Cloud of Comprehensible Theme

As can be seen in Figure 10, as the reason for the scores given by the teachers to the comprehensible theme in the games; They expressed their opinions about the codes being explanatory, having instructions, plain language, being understandable, being at a simple level, not having commands, not being comprehensible, and containing errors. Except for two of the designed games (G4, G6), the others were found sufficient and very sufficient in the theme of intelligibility. The teacher, who found these games to be less sufficient, stated that there were errors in the use of parentheses in the G4 coded game as a reason. He stated that this situation may cause the student to not fully understand the subject. For G6, it was stated that the questions were not intelligible. When we look at the reasons for finding the games sufficient, it is stated that the game instructions and problem situations are understandable, the questions are written in a plain language, and the language is simple and understandable. In the games, the explanations made by the teachers regarding the instructive and reinforcing theme are combined in common codes and given as a word cloud in Figure 11.

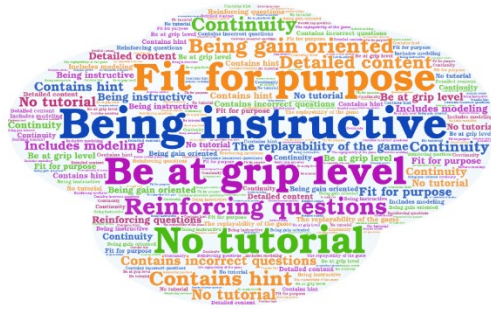


Figure 11. The Word Cloud of Educational and/or Reinforcing Theme

As can be seen in Figure 11, as the reason for the scores given by the teachers to the educational and/or reinforcing theme in the games; They expressed opinions in the codes that the outcome is instructive, comprehension level, questions are reinforcing, suitable for its purpose, the game is repeatable, contains hints, is outcome-oriented, not instructive, and contains incorrect questions. Most of the games were found to be sufficient and very sufficient in the theme of instructive and reinforcing. Only three games were found to be less than sufficient by the same participant. The games coded as G4, G5 and G13 are the games coded as G4, G5 and G13. It is seen that the explanations are included. On the other hand, it was found to be very sufficient by five participants because it included different examples in the game coded G2. In the games, the explanations made by the teachers regarding the evaluation theme are combined in common codes and given as a word cloud in Figure 12.

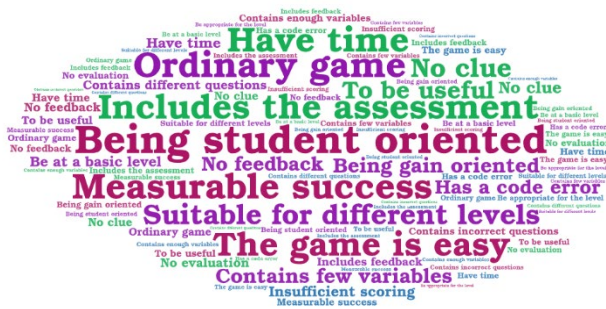


Figure 12. The Word Cloud of the Evaluation Theme

As can be seen in Figure 12, as the reason for the scores given by the teachers to the evaluation theme in the games; They expressed opinions in the codes that there is a time limit, that it includes evaluation, that it is student-oriented, that it is suitable for different levels, that success is measurable, that the game is ordinary, that the game is easy, that it contains few variables and that scoring is insufficient. Most of the games were found very adequate and sufficient. Seven games were found to be less sufficient. Games that are found to be less sufficient are G2, G3, G4, G5, G7, G10 and G12 coded games. Except for the G2 coded game, the other games were found to be less sufficient by the same participant. Examining the reasons why the games were found to be under-sufficient, the use of only true and false evaluation for the G3 coded game, the use of only the score variable for the G4 and G5 coded games, the direct passing without any hints when the wrong answer is given for the G7 coded game, and any evaluation for the G10 coded game were examined. He explained that he gave these points because there was no situation and he found the evaluation insufficient for the G12 coded game. In the games, the explanations made by the teachers regarding the usage theme are combined in common codes and given as a word cloud in Figure 13.

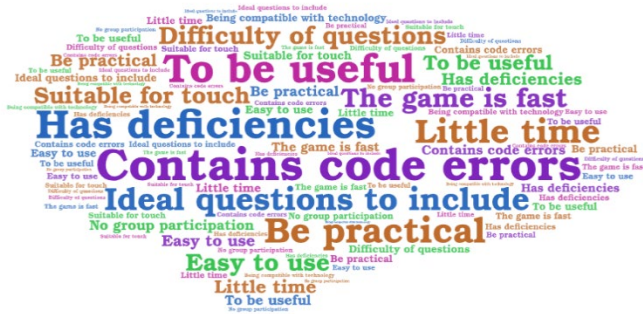


Figure 13. The Word Cloud of Usage Theme

As can be seen in Figure 13, as the reason for the scores given by the teachers to the usage theme in games; They expressed their opinions in the codes of being practical, useful, suitable for technology, containing ideal questions, suitable for touch, containing code errors, having deficiencies and difficult questions. Most of the games were found sufficient and very sufficient. In this theme, the game coded G1 was found to be less than sufficient by four participants. It is seen that the G1 game is found to be insufficient due to reasons such as code error, not working properly, some questions not appearing and the keys used are letter keys. On the other hand, G11 and G13 coded games were found very sufficient by five participants each. Since the participants found these games easy, practical and ideal, they thought that teachers could use them in the classroom. In the games, the explanations made by the teachers regarding the level theme are combined in common codes and given as a word cloud in Figure 14.



Figure 14. The Word Cloud of Level Theme

As can be seen in Figure 14, as the reason for the scores the teachers gave to the level theme in the games; They expressed their opinions in the codes that it is suitable for the level, easy to difficult, simple questions, suitable for the beginner, suitable for the upper level, and having visual support. Most of the games were found to be very adequate. Only G1, G3, G4 and G8 coded games were found sufficient. Most of the teachers stated that this theme was appropriate for the level. Among the shortcomings, it was stated that the questions in the G3 and G7 coded game appeal to senior students and that the questions are difficult. In the game coded G4, a teacher stated that the questions were difficult to begin with. In the game coded G6, three teachers stated that it can be used at all levels. In the games, the explanations made by the teachers regarding the theme of originality are combined in common codes and given as a word cloud in Figure 15.



Figure 15. The Word Cloud of Originality Theme

As can be seen in Figure 15, as the reason for the scores given by the teachers to the originality theme in the games; They expressed their opinions in the codes of being appropriate for the learning outcome, being original, being up-to-date and not being original. The games were generally evaluated as sufficient and very adequate. G1 coded game was found to be less sufficient. In the game coded G3, two teachers stated that the questions in the game were classic and frequently encountered before. G5, G6 and G8 coded games were found to be very sufficient. In the game coded G2, three teachers found the game original and successful according to the subject. In the game coded G8 and G10, three teachers found the game original and creative. Only one teacher stated that he did not find it original in the game coded G11 and G13. In the games, the explanations made by the teachers regarding the theme of time are combined in common codes and given as a word cloud in Figure 16.

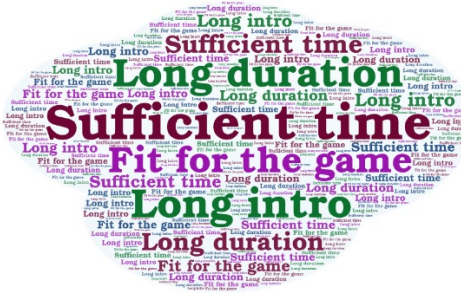


Figure 16. Word Cloud of the Duration Theme

As can be seen in Figure 16, as the reason for the scores given by the teachers to the duration theme in the games; They expressed opinions in their codes that the duration is sufficient, it is suitable for the game, the entrance is long and the duration is long. It is stated that the time in the games is very sufficient. In the game coded G3, a teacher stated that the students should be given a little more time, that is, the time should be extended a little more because the apples in the game fall very quickly. On the contrary, another teacher stated that the four-hour period given for the G3 coded game is too much and that it may cause students to get bored in the lesson because it is a repetitive game. It is striking that the G1 and G5 coded game is found to be less sufficient in the duration category. In the G1 coded game, three teachers stated that the time given for the game was too much. In the game coded G4, the teacher stated that the introduction part was too long.

Results, Conclusions and Recommendations

When the games designed by the pre-service teachers were examined pedagogically, while the games were generally considered very adequate in terms of problem solving, interesting, level and duration; exploration and reasoning, connection, strategy, participation, usage and originality were found to be less sufficient. The fact that the games designed by the mathematics teachers in Öztürk's (2021) study were generally sufficient in terms of problem solving and level themes coincide with the result of this study. The reason why the pre-service teachers had difficulties in the themes of strategy, connection and originality in the games they designed could be shown as the difficulty of the pre-service teachers in setting up the game scenario. Similar results were found in the study conducted by Yıldız Durak and Karaoğlan Yılmaz (2019) with prospective mathematics teachers. Based on this result; in digital game design, it is recommended to carry out studies in order to eliminate the deficiencies of the pre-service teachers especially in the themes that they get one point, in other words, they are less sufficient. Especially the strategy theme is important in game design. Studies in the literature also draw attention to strategy. For example, Arsal (2009) also drew attention to teaching the use of different strategies. Altun and Arslan (2006) also stated that learning and using different strategies was also effective in developing a positive attitude towards mathematics. Based on this result, it can be suggested that pre-service mathematics teachers could include problem situations that will reveal different strategies in the games they designed by using Scratch. Another result of the research was that some of the games designed by the pre-service teachers were found to be less sufficient in connection theme. Accordingly, it can be said that the pre-service teachers could not use the situations related to daily life in the games they designed as it was desired. This result is in parallel with

the study of Öztürk (2021), and Öztürk revealing that the games in the field of algebra learning of mathematics teachers are insufficient in the theme of strategy. Games involving daily life situations are generally more liked and attracted by students. In the curriculum published by the Ministry of National Education (2018), the skill of associating with daily life was frequently emphasized. There are many studies stating that students have difficulties especially in the field of learning algebra (Akkaya & Durmuş, 2006; Erdem & Sarpkaya Aktaş, 2018; Ersoy & Erbaş, 2005). In this case, it can be said that the use of daily life situations in mathematics teaching can help learning mathematics better, increase students' interest in the lesson, and provide the opportunity to integrate mathematics with daily life. Similar to these results, Gainsburg (2008) and Wubbels, Korthagen, and Broekman (1997) concluded in their studies that daily life situations could be used in mathematics teaching. In line with these results, it is thought that using daily life situations would reduce students' prejudices against mathematics, they would trust themselves and would provide a fun learning environment. When the usage of the theme was examined, some teachers emphasized that they could use these designed games in their lessons, while others stated that they could not use them in their lessons due to missing instructions, code errors, and the lack of a program. From this point of view, it can be said that these errors or deficiencies can be eliminated in order for the designed digital games to be used by teachers.

When the total scores of the games designed by the pre-service teachers re evaluated as a result of the evaluation, it could be said that all of the games were found sufficient by the mathematics teachers. This result shows that pre-service teachers' skills in designing digital games are sufficient. In this study, the number of samples was limited and pre-service teachers were asked to evaluate the games they designed from the perspective of mathematics teachers. However, teacher reflections about the digital games designed by the teacher candidates and using them in the classroom environment due to the Covid 19 epidemic could not be examined. It is recommended that researchers who can design study about this u conduct design-based research on larger samples, especially with teacherstaking active roles in their classrooms.

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Additon-1 Screenshots of the same games

G1	
G6	
G8	
G9	
G10	

Metaphoric Perceptions of School Principal Candidates: Being a School Principal

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Abstract

The purpose of this research is to determine the perceptions of vice-principals and teachers, who are candidate principals, about being a school principal through metaphors. For this purpose, the candidate principals produced metaphors regarding the concept of being a school principal. In the qualitatively designed research, phenomenology the research design used. The vice-principals and the teachers attending the series of in-service training courses held for candidate principals in Nicosia during the 2018-2019 academic year constituted the study group of the study. Research data were collected using a semi-structured interview form. The semi-structured interview form included the metaphorical definition of the school principal and the reason to produce the mentioned metaphor. To analyze the data content analysis method was applied. The perceptions of the candidate principals revealed twenty-six metaphors regarding the concept of being a school principal. These metaphors were gathered under nine categories by the researchers. The produced categories namely are guiding school principal, protecting school principal, diligent school principal, negatively behaving school principal, balancing school principal, superior power user school principal, acting school principal, the school principal as the source of information and indispensable school principal. The most produced metaphor by the candidate principals is called a school principal is a conductor. A school principal is similar to a commander, an orchestra conductor, a theatre artist, a bull, a mirror, a clock, a mother/father, a bridge, an acting, a state, a lion, a nervous system and a building foundation. To determine a series of metaphors classified under eleven categories and the most repeated metaphors were classified under the guiding school principal category.

Key words: School principal, metaphor, candidate principals, leadership

Introduction

Contemporary theorists argue that there is more to mention about metaphors than explaining in simple words. Metaphors are the words allowing us to think of one thing in terms of another description. We can understand something new because we can connect it to something we know or understand. Unknown concepts become understandable and known through metaphors (Brandt, 2004). Particularly, metaphors enable people to understand and experience one thing using another figurative way (Lakoff and Johnson, 2003). To explain or interpret reality requires the usage of metaphors (Lunenburg and Ornstein, 2012). Metaphors are abstract elements shaped by the perceptions of living beings, images of objects, and human beings associated with daily life experiences. The universe of meaning belonging to metaphors, as a field that carries traces from concrete experiences, also reveals the relationship established directly with objects (Abdal, 2017). In other words, by examining metaphors, we begin to perceive our cultural and physical experiences (Hogler et al., 2008).

Since metaphors reflect a different view and vision on how we better understand the world, leveraging these potential tools can be beneficial in improving our perceptions and understanding of a complex and contradictory phenomenon, such as organizations. Morgan (1997) states that metaphors are the cornerstones of our tolerances and our judgments as a way of thinking and understanding perceptions, all the theories about organizations are metaphors in nature. Managers make progress through gaining knowledge and promoting knowledge about an organization using the metaphors and practices produced by Morgan (1997). Metaphors have a cognitive, theoretical, and didactic function in organizations, and they provide a better understanding of organizations (Chatelain-Ponroy, 2010). Admittedly, a metaphor allows re-conceptualizing, meaning to a term under the influence of a concept belonging to another domain through the cognitive function. A metaphor plays an inseparable and irreplaceable role in a theory or discipline through the theoretical function. Finally, in the didactic function, it is possible to explain

information from a known field, applied since Aristotle, by employing it through an unknown path. Thus, it helps to understand the obscure area.

Moreover, Itkin and Nagy (2014) explained that the metaphors produced by Morgan (1997) are effective in helping us to figure out the structures of organizations, their leadership styles, their management behavior, and the type of control by adding meaning to them. They also argued that, due to the multidimensional nature of metaphors, multiple aspects of organizations emerged, leading to the expansion of our knowledge, views, and visions. They need to do more research to explore how to apply metaphors in various local organizations, political organizations, hospitals, and universities.

Three communicative functions of metaphors set as effective expression/compactness, inexpressiveness, and liveliness. The compactness function of metaphors is on a restructuring understanding of language. The metaphor of compactness enables predicting a set of properties that requires a long list of properties specified separately in one or two words. People can explain ideas in a more detailed and effective/compact manner with metaphors. The inexpressiveness metaphor makes it possible to predict by transferring its unnamable properties. The last hypothesis, called liveliness, says that metaphors make statements clearer (Ortony, 1975).

Lakoff and Johnson (2003) mentioned three types of metaphors within the framework of metaphor theory: Ontological metaphor, structural metaphor, and intentional metaphor. The concept of ontological metaphor includes the act of giving concrete features to abstract concepts and ideas. The ontological metaphors with cultural characteristics are directly related to individual experiences. Structural metaphor is one of the concepts giving structure to another. Building metaphors work with an internal system in accordance. However, this systematicity is limited, as is the nature of the metaphor. The intentional metaphor with real actualization of embodied concepts produced by individuals in textual usage and the intentional metaphor with indigenization/alienation has a close connection to the metaphorical rewriting process. The source field of orientation metaphors after concepts that usually indicate involves a space. The concepts indicating spaces are as follows: up-down, in-out, anteroposterior, deep-shallow, center-periphery. Such metaphors are on bodily experience. The orientation concepts have existed due to the kinds of bodies we own. Our body acts as a reference point or reveals experiences. Therefore, the space within the framework of these concepts, according to the experiences it has experienced while moving.

Botha (2009) stated that the use of educational metaphors is in the following areas.

1. Metaphors can create the educational policies we design, such as metaphors on market metaphor or school choice (goods, services, consumers).
2. It can be related to the teaching process (such as teaching as regulation, conditioning, guidance, or training).
3. They can function intuitively as an exploration tool (spiral staircase or ladder).
4. They usually function didactic as part of teaching approaches (dramatization and role-playing).
5. They characterize the teaching actions of the teacher (pottery, gardener, artist, police, entertainer, preacher, scholar, guide, coach, researcher, sculptor, conductor, gardener, wife, etc.).
6. They determine what the learning process will look like (sponge, filter, funnel, strainer).
7. They characterize the content of the subject taught and the curriculum (system, mechanism, organism).
8. Metaphors can function as communication tools.
9. Metaphors mediate understanding of the nature of the school (family, factory, etc.) as an educational institution.

Metaphors directly affect our negotiations and relationships at the personal level, which conversely affect the processes regarding educational administration.

The nature, emergence, and emphasis of metaphors in educational administration are vital for administrators to understand interpersonal relationships, which has importance for the school climate (Tomlinson, 2004). A metaphor, a powerful tool for designing many aspects of the hidden world of learners and teachers, the interested educational parties, affects concepts and processes educationally. Educational concepts and processes are described metaphorically (Low, 2008). Brooks and Normore (2010) evaluated the new roles of school administrators for the training of education leaders for 21st-century schools. They argued that contemporary education leaders should develop global literacy skills under nine specific areas of knowledge: political literacy, economic literacy, cultural literacy, moral literacy, pedagogical literacy, information literacy, organizational literacy, spiritual and religious literacy, and temporal literacy. Moreover, each of these areas of literacy is dynamic, interconnected, and influenced by different representatives of education leaders. Various behaviors of school administrators are perceived, monitored, and interpreted by the groups they are in contact with. As appeared in human minds, others can note for meaning. There are various ways to express mental perceptions. One of these different ways of interpretation includes metaphors.

Beck and Murphy (1993) agreed on how the image of the school principal changed between 1900 and 1990. They also found that in the 1900s principals were seen as teachers with administrative responsibilities and as guardians of accepted values. By the 1920s, the dominant opinion in the school principal was the scientific administrator. However, a series of numerous references had the spiritual and religious values of the principals in many sources. These references disappeared in the 1930s, and the principals in an organization and school administrators took the attention. Principals in the 1940s and 1950s were leaders of democratic schools, whereas the principals in the 1960s were required to use proven strategies for excellence. The director of the 1970s was the person who leads the way in solving social problems. In the 1980s, principals run schools to encourage the development of a stable economy. The early 1990s were part of the second wave of education reform as a restructuring movement. The metaphors identified for the reconstruction movement listed as follows: a leader, a servant, an organizational architect, a social architect, an educator, a member of society and, a moral agent.

To be assigned as a principal in the education system of North Cyprus, it is required to serve full-time as a governmental primary teacher for at least ten years and teach full-time as a governmental secondary school teacher for at least fifteen years. The appointment of the principals and vice-principals resulted through the intervention criteria evaluation and the ranking determined as a result of the exam with the amendment made in the Teachers Examination Regulation dated 28 February 2019. Criteria evaluation for the candidate principals in the education system of North Cyprus consists of seniority, registration, professional development courses, scientific activity-publication, and social-cultural activities. Written multiple-choice promotion exam includes education management, legislation, general culture, English, and ICT subjects shown in Table 1 (Yükselme Sınavını Oluşturan Testlerin Kapsamı, 2019).

Table 1. Topic Distribution of the Topics of Written Promotion Exam in North Cyprus

Topic Distribution	Primary Education, Secondary Education, Vocational-Technical Education
Education Management	160
Legislation	180
General Culture	40
English (Intermediate Level)	10
Computing Skills (ICT)	10
Total	400

According to the same regulation, candidates who fail to get at least fifty percent in the written examination and who cannot achieve 600 or more in total cannot enter the placement list (article 14/3). As a result of the written promotion exam and criteria evaluation, the candidates are entitled to appointment to the vacant teacher positions by the Public Service Commission (article 18/1). Again, according to this regulation, the Ministry of Education regularly organizes in-service training courses required in educational management sciences and other related branches every year. Various studies have been conducted on the metaphorical view of the school principals. These studies were conducted by prospective teachers (Çobanoğlu and Gökalp (2015), Örucü (2014), Akyol and Kapçak (2017), by students (Şahin and Tüzel (2014), Aslan, Bilgili and Kaya (2018), Akbaşlı, Üredi, Yolcu, and Loğoğlu (2017), by teachers (Korkmaz and Çevik (2018), Akan, Yıldırım and Yalçın (2014) and by school administrators (Demirtaş and Özer (2014).

In Northern Cyprus, vice-principals and teachers desire to be a school principal. For this purpose, they participate in-service training and engage in social activities. We cannot explain this only with the small increase in income as a result of school principalship. Here, personal wishes, environmental effects and goals to be achieved are also effect their desire. Metaphors will help us in understanding these effects. There is no study in the literature conducted with vice-principals and teachers who attend the series of in-service programs to meet their goal. In addition, collecting data through metaphors is one of the most effective data collection methods to understand the variables motivating the candidate school principals. With this study, it is a matter of trying to understand the reasons leading the vice-principals and teachers requesting to become school principals through metaphors.

To determine the perceptions of the candidate principals through metaphoric usage is the purpose of the current study. Candidate principals are vice-principals and teachers.

Answers given to the following questions are maintained to achieve the purpose:

1. What are the metaphors that prospective school principals have regarding the concept of principalship?
2. Under which common conceptual categories are the produced metaphors grouped using their features?

Method

The current study aims to reveal perceptions regarding candidate principals about the concept of principalship in North Cyprus through metaphors, the phenomenology design, one of the qualitative research designs, was used.

Research Model

Phenomenology design is a qualitative research design that aims to make sense of the facts with different perspectives by determining the experiences and meanings of the participants. This research method is on making direct sense of the meaning or nature of their daily experiences in depth by the individuals (Patton, 2002; Creswell, 2003; McMillan, 2004). The phenomenological approach is a type of qualitative research suitable for studying decisive, emotional, and intense human experiences (Merriam, 2009). The phenomenological pattern aids the researcher in building a description of the situation and developing the bridges between the different interpretations emerging from the event. Throughout the process of the phenomenological pattern, defining the case to be studied, describing the experiences of the person concerned, and collecting information from various people experiencing the circumstances seems important (Moustakas, 1994).

A metaphor is a linguistically expressed item transferred from a field of application. This transmission serves the purpose of establishing a particularly appropriate description of the characteristics of the target area where setting no targets to disclose like a black hole, or none are deemed appropriate (Jones, 2002). Black (1979) also argued that a figurative statement leads to new knowledge or understanding of the subject under consideration.

Instead of directly questioning the perceptions of the candidate principals, data collection was conducted through metaphorical usage to create an opportunity for the participants to reveal their views, beliefs, and perceptions indirectly. The usage of metaphors generally aids in communicating the meaning and transferring passion about the topic (Carpenter, 2008; Sandelowski, 1998).

Study Grup

The purposive sampling method has been beneficial in selecting the studying group for the current study. For this purpose, teachers, and vice-principals participating in the Professional Development Program of School Administrators in the Context of Inclusive Education, designed and applied by the TRNC Ministry of National Education and Culture between 4-9 November 2018 by following Article 8 under the Teachers Examination Regulation, constitute the study group of this research.

Table 2. Demographic Information of the Candidate School Principals

	Groups	N	%
Sex	Female	24	75
	Male	8	25
	Total	32	100
Status	Vice Principal	9	28,1
	Teacher	23	71,9
	Total	32	100
School Type	Primary	7	21,9
	Secondary-High School	25	78,1
	Total	32	100

75% of the participants are women, and 25% of them are men. In TRNC, the number of female teachers is higher when compared to male teachers. For example, in the 2019-2020 academic year, there are 2748 female teachers and 1253 male teachers in public schools in the TRNC education system. In other words, 31.32% of those working in the education system are male teachers, while 68.68% are female teachers (eohd.mebnet.net, 2020).

Most of the participants are entitled to teachers. There are 179 teachers entitled to vice-principals in the system in the 2019-2020 academic year (eohd.mebnet.net, 2020). 78.1% of the participants serve in secondary education. In the 2019-2020 academic year, 2407 teachers teach in the public secondary schools, while 1594 teachers teach in primary schools (including special education and pre-schooling) (eohd.mebnet.net, 2020).

Data Collection Tools and Procedure

To determine the metaphors they produced for the concept of being a school principal, the researchers asked the candidate principals to fill in the blanks regarding the following question format: School principal is similar to; because A semi-structured form, an interview consent form, was used. The reason for asking the participants to explain why they produce the metaphor, the metaphors used alone may not be sufficient to fulfill the given communicated perception; therefore, the communicated perception, the purpose of the metaphors produced, aimed to interrogate kindly for a valid reason. To categorize the data through the content analysis method, the research question determines what to insight and create further (Elo and Kyngäs, 2008). Content analysis is one of the systematic and objective ways to describe phenomena and analyze the relationships of concepts (Schreier, 2012). The research question determines what to analyze and what to create (Elo and Kyngäs, 2008; Schreier, 2012). The abstraction process in qualitative content analysis is the stage to produce concepts.

Generally, identifying some aspects of the process becomes easy, which conversely depends partly on the insight of the researchers or intuitive action (Elo and Kyngäs, 2008; Graneheim and Lundman, 2004). A prerequisite for successful content analysis concerns the data reduced to concepts to define the research phenomenon through creating categories, producing a series of concepts, designing a model, programming a conceptual system, or a conceptual map. Inductive or deductive usage of qualitative content analysis is possible. The inductive and deductive content analysis processes involve three main stages: preparing, editing, and reporting results. The preparation phase consists of collecting appropriate data for content analysis, interpreting the data, and selecting the analysis unit. In the inductive approach, the organization phase includes open coding, category creation, and abstraction (Elo and Kyngäs, 2008). In deductive content analysis, the organization phase involves developing a categorization matrix, where all data are analyzed in terms of content and coded for conformity to defined categories or sampling (Polit and Beck, 2012).

The classification matrix can be valid if the categories adequately represent the concepts, and in terms of validity, the categorization matrix accurately captures the intended purpose (Schreier, 2012). In the reporting phase, results defined by the content of the categories describe the phenomenon using a chosen approach (deductive or inductive).

Data Analysis

A five-staged analysis method applied in metaphor studies: Teachers developed the metaphors and sentences in the naming stage to examine. The metaphors produced are listed in alphabetical order. Concepts counted as metaphors have been confirmed and marked by the educational field expert. During the screening phase, the unrelated metaphors produced by the participants put aside the evaluation. Accordingly, the data produced by four teachers left aside in the scope of the study. Thirty-two vice-principals and teachers who produced data with metaphors were included in the study. To perform the necessary processes, the subjects and sources of each of the metaphors were produced and, the relationship between the subjects and sources of the produced metaphors were taken into consideration. At the category stage, nine different conceptual categories were created by examining the metaphors produced by the teachers, their common features, and qualities regarding the concept of being a school principal.

Ethical

The similarity rate was to determine the reliability of the study by consulting the opinion of the educational expert. For this purpose, the researchers gave a list containing the metaphors in alphabetical order and a list containing the names and characteristics of different categories to the educational expert. To compare both of the lists, the researchers asked the educational expert to match the list containing the metaphors with the list containing the different categories. The researchers also matched the list containing metaphors with the list containing the different categories. Miles and Huberman's (1994) formula to calculate the reliability of the research in comparisons was applied as follows: (Reliability Coefficient=Consensus/Consensus+Disagreement). The opinion by the educational expert linked the two metaphors by placing them in different categories. Accordingly, a consensus of 98%

(Reliability=100/(100+2)=0.98) was calculated in the reliability study regarding the concept of principal. According to the coding control, which gives internal consistency, the consensus between the coders is to be at least 80%. A full consensus was achieved through making corrections together in matches with disagreement. The frequency (f) values of the data were calculated. In addition, the vice-principals in the research were entitled VSP1, VSP2, and the teachers were called T1, T2, T3.

Findings

In this section, the metaphors produced about the principalship and the categories created are determined.

Metaphors of Candidate Principals for the Concept of Principalship

Findings of the research revealed that the metaphors produced by the principal candidates for the concept of principalship and the number of candidate principals representing them (f) are explored in Table 3.

Table 3. Metaphors Produced Regarding the Concept of Principalship and the Number of Candidate Principals Representing Them

No.	Metaphors Produced	Frequency (f)	No.	Metaphors Produced	Frequency (f)
1.	Commander	1	14.	Hitler	1
2.	Orchestra Conductor	4	15.	Octopus	1
3.	Theather Artist	1	16.	Panda	1
4.	Bull	1	17.	Atom Ant	1
5.	Mirror	2	18.	The Nucleus of the Atom	1
6.	Clock	1	19.	Householder	1
7.	Mother/Father	1	20.	Compass	1
8.	Bridge	1	21.	The Root of the Tree	1
9.	Acting	1	22.	Soldier	1
10.	State	1	23.	Driver	1
11.	Lion	1	24.	Captain	1
12.	Nervous System	1	25.	Tree	2
13.	Building Foundation	1	26.	Bee	1
Total Number of Candidate Principals				32	
Toptal Number of Metaphors				26	

As seen in Table 3, teachers produced twenty-six different metaphors related to the concept of principalship by the teachers and vice-principals who are principal candidates. It is seen that the metaphor most frequently developed by principal candidates is called conductor (f = 4). Various metaphors produced were developed by one to two teachers.

Categories Created by the Metaphors by the Principal Candidates Regarding the Concept of Principalship

The classification of the types of metaphors produced by the principal candidates regarding the concept of principalship in terms of their common qualities and features is given in Table 4.

Table 4. Distribution of Metaphor Categories Produced by the Candidate Principals

Categories on	Frequencies of Metaphors (<i>f</i>)	Percentages (%)	Metaphors produced by Vice-Principles	Metaphors produced by Teachers
Guiding School Principal	11	34,37	Conductor(2), Mirror	Conductor(2), Mirror, Octopus, Compass, Driver, Captain, Nervous System,
Protecting School Principal	4	12,5	Mother/Father	Householder, Head of the Family, State
Diligent School Principal	4	12,5	Clock	Bee, Atom Ant, Tree
Negatively Behaving School Principal	4	12,5	Sitting Bull	Hitler, Panda, Soldier
Balancing School Principal	2	6,25	Bridge Commander	---
Superior Power User School Principal	2	6,25	---	Lion, Building Foundation
Acting School Principal	2	6,25	Theatre Artist	Acting Person
The School Principal as the Source of Information	2	6,25	---	TheRoot of a Tree, Tree
Indispensable School Principal	1	3,13	---	The Nucleus of an Atom
Total	32	100		

According to Table 4, the metaphors developed by the principal candidates regarding the concept of principalship were categorized under nine categories in total.

The category of guiding school principal got the highest number among the metaphors produced by the candidate principals ($f = 11$). Similarly, the category of indispensable school principal got the least number among the metaphors produced by the candidate principals ($f = 1$). However, the number of metaphors of the remaining categories varied between 2 and 4.

Guiding School Principal Category

According to Table 4, three vice-principals and eight teachers produced seven metaphors in the guiding school principal category. In this category, the metaphors of conductor, mirror, octopus, compass, driver, nervous system, and captain were used.

Below are sample expressions produced by the candidate principals in this category as follows:

“The headmaster is like a conductor. It ensures that all units, staff, teachers, parents, and students are in harmony with each other/ He should be knowledgeable while managing the institution, who can see and

correct the mistakes that everyone communicates and can act together with the members of the orchestra to correct them (VP2)."

"The headmaster is like a mirror. Because the person shows the result in his actions. It reflects itself (VP5)."

"The principal is like an octopus. Because it helps in every job (T18)."

"The headmaster is like a compass. Because it should show direction and help achieve the determined goals (T24)."

"The principal is like an experienced driver. Because with its experience and knowledge, it leads to where it needs to go to school (to manage properly). With his knowledge and skills, he knows what to do in the face of the events he encounters, makes the right decision, or ensures the right decision collectively (T29)."

"The school principal is similar to the nervous system. Because the nervous system has a structure that responds to the vital functions of a living thing, detects faulty data coming from outside and the environment, and develops a defense mechanism accordingly. (T14)."

"The headmaster is like a captain. Because the education system is a whole consisting of more than one person and component. The person who will guide this system and contribute to the implementation of the determining system in schools is the school principals. Just like the captain who determines the required route for a ship to sail (T30)."

Protecting School Principal Category

According to Table 4, a vice-principal and three teachers produced four metaphors in the protecting school principal category. In this category, the metaphors of mother/father, householder, head of the family, and state were produced. Below are sample expressions of the vice-principal and teachers who produced the metaphors in this category.

"The school principal is similar to the mother/father of the house. Because running the school is like running the house. It must be possessed, and if necessary, it must be able to sacrifice time for itself. Such as the mother/father's supposed and/or actions at home towards their children. For example, he should never discriminate, behave fairly. He must love his employees as he loves his children, value them, and make them feel this. In the meantime, when necessary, he/she should objectively evaluate what everyone does or does not do and reward/penalty, etc. Applications such as should do. The main thing should love his job (VP8)."

"A school principal is like the head of a family. Because just as ahead of a family is responsible for his family, a principal is responsible for all kinds of work of the school (T23)."

"The school principal is like a family man. Because the administration, teachers, and students are members of the family (T25)."

"The school principal is like a state. Because the primary point of the state's first justice is the schools before the courts. And when schools are delivered to those who do not see the state as a state, they aim to raise people with different ideologies and beliefs, not for the nation (T12)."

Diligent School Principal Category

Table 4 reveals that a vice-principal and three teachers produced four metaphors in the diligent school principal category. In this category, the metaphors atom ant, bee, clock, and tree were used. Below are the sample statements of the teachers who produced the metaphors in this category.

"The director is like an atomic ant. Because it works tirelessly (T21)."

"The school principal is like a bee. Because it works non-stop (T32)."

"The warden is like a clock. Because it has to work constantly to keep things running smoothly. It will give the wrong time like the clock stops or slows down. If the principal does not make the right decisions and is not for permanent domination, the functioning of the school will be disrupted (VP7)."

"The principal is like a tree. Because its roots have to reach everywhere (T27)."

Negatively Behaving School Principal Category

According to Table 4, four metaphors were produced by two vice-principals and two teachers in the negatively behaving school principal category. In this category, the metaphors of sitting bull, Hitler, soldier, and panda are used. Below are sample expressions of the vice-principal and teachers who produced the metaphors in this category.

"The headmaster is like a sitting bull. Because the status he received as matador is known for the sub-staff to do all the work, the principal is only at school to approve the signature meeting and the approval of the resolved status of the problems (VP4)."

"The school principal is similar to Hitler. Because they have the logic that whatever I say happens (VP7)."
"The headmaster is like a panda. Because he transfers all the work (including administrative powers) to the assistants and comes and goes to school arbitrarily. Sometimes it does not come (T20)."
"The headmaster is like a soldier. Because he fulfills the duties he has taken from superiors (T28)."

Balancing School Principal Category

According to Table 4, two vice-principals produced two metaphors in the balancing school principal category. The metaphors of bridge and commander were produced in this category. Below is the sample statement of his assistant who produced the metaphors in this category.

"The headmaster is like a bridge. Because it regulates the flow of education. Roads coming from students, teachers, parents, and ministries usually cross and find direction at this point. The stronger functional the structure and operation of this bridge, the more regular the training traffic (VP9)."

"It compares the headmaster to the commander. Because, in our schools, performance evaluation, the reward is not punishment, so it is necessary to carry out the system in a disciplined manner. In addition to the teachers who do not attach importance to education and training due to the gaps in the system, unfortunately, I think it is necessary to think about a little hard to balance the teachers who develop themselves in this system and to understand its importance. This is necessary while teaching and valuing students (VP1)."

Superior Power User School Principal Category

According to Table 4, two teachers produced two metaphors in the category of superior power user school principal. In this category, the metaphors of lion and building foundation were used. Below are sample statements of the teachers who produced the metaphors in this category.

"The headmaster is like a lion. Because the lion is the leader of the forest and the school principal (T13)."

"The school principal is similar to the foundation of the building because if the foundation is not strong, the building may collapse (T16)."

Acting School Principal Category

According to Table 4, a vice-principal and a teacher produced metaphors in the acting school principal category. In this category, the metaphors of theater artist and acting person were used. Below are sample expressions of the vice-principals and teachers who produced the metaphors in this category.

"The principal is like a theater artist. Their ideas and roles change according to the game and the actor (VP3)."

"School principal is like an acting person. Because it manages the events according to the situation (T11)."

The Principal as the Source of Information Category

According to Table 4, two teachers produced two metaphors in the school principal as the source of information" category. In this category, the root of a tree and tree metaphors were used. Below are sample statements of the teachers who produced the metaphors in this category.

"The principal is like the root of the tree. Because no matter how much he develops himself, the teachers who have branches will be good and do their job lovingly (T26)."

"The principal is like a tree. Because if it can correctly convey the commands and duties of the system that brought it there to its branches (teachers and students) by using its knowledge and abilities, it will turn green and bloom, that is, a living organism becomes a useful organism. If the directorate cannot accommodate their skills and knowledge, only the trunk (wood) remains (T31)."

Indispensable School Principal Category

According to Table 4, a vice-principal produced a metaphor in the indispensable school principal category. In this category, the metaphor of the nucleus of an atom was used. Below is the sample statement of the vice-principals who produced the metaphors in this category.

"The headmaster is like the nucleus of an atom. Because it forms the basis of all of the school (VP2)."

School principalship is a place for promotion in the education system on North Cyprus. Candidate principals apply to the vacant post to enter the written examination used for selecting the right candidates. Before applying to the written exam, each candidate needs to prepare a folder to meet the predetermined criteria. The criteria to be used in calculating the criterion scores for each candidate principal for

promotions include the level of seniority, grades of registry/inspection of years, level of education, activities on professional development, on scientific publication, and on social-cultural as well as the years being staff at the same school. To be appointed and entitled to the school principals, they need to meet the passing requirements. Being a school principal in TRNC requires meeting predetermined competencies and demands to be successful in the selection exam, having the highest criteria results, and being included in the list announced for the vacancy. It is vital how vice-principals and teachers perceive school principalship in their wishes to become school principals. Metaphors reflect thinking processes and therefore appear not only in language but also in perception (Lawrence, 2009). Arkonaç (2005) defines perception as interpreting the sensory data carried by the sensory organs and giving meaning to the stimuli in the environment.

Perception is not solely a sense. It is the end maintained through process-product after several serious studies. The brain is effective in this process. Past experiences, cultural factors, and expectations of the individual are decisive (Cüceloğlu, 1997). The school principalship considers important whether its perception aspect regarding objective facts or the aspects related to our subjective knowledge. Vice-principals and teachers would experience the selection process after the course they attended. Most of them would become school principals. Therefore, how candidate principals perceive school principalship and how they understand the principalship concept places a significant value. The principal candidates were asked to answer and give their reasons what and why to compare the school principals through metaphoric usage. The answers received were examined one by one. The researchers calculated frequency and percentages. To consider what and why to compare the school principals through metaphors, the researchers formed the themes analyzed. These themes aided in understanding how teachers perceive the school principal.

Examining the expressions in the guiding school principal category, the candidate principals mostly use the metaphors called conductor, mirror, octopus, compass, driver, nervous system, and captain. The vice-principals and most of the teachers see the school principalship as a guide.

School principals guide teachers and students with their behaviors, and their practices are one of the main roles expected and desired from them (Döş and Savaş, 2015; Balyer, 2013).

Again, the school principal appearing to be the conductor shows that they perceive school principals as people who coordinate and behave in harmony. Akbaşlı and Diş (2019) determined that leading school principals should carry guiding spirit as part of their human characteristics. Cerit (2008) states that principals who conduct orchestration are perceived more than the shareholders who increase the quality level of educational activities, use human resources effectively, design material resources in the school, help and guide teachers and students when they need.

To examine the metaphors in the protecting school principal, the school is similar to a family, and the school principal plays the supervision role for the family. The traditional school image promotes that a traditional school is a place to protect students against external negativity and to educate them according to the desired characteristics (Cerit, 2008). This expectation shows that schools are perceived as the family and they have a role in protecting and raising children. Dağlı and Ağalday (2018) found that school principals protect teachers against unfair criticism from outside the school at the highest level.

Considering the expressions in the diligent school principal category, the school principals have an effort to meet the schools' needs, and they inevitably work for the school. The school principals loving their profession or doing their profession is fondly effective in the emergence of this result. However, a small number of teachers developing metaphors for this category are perceived deficiencies for school principals. Studies show being hardworking has been considered as one of the characteristics of the school principals (Babaoğlu, Nalbant, and Çelik, 2017; Turan, Yıldırım, and Aydoğdu, 2012).

To maintain the expressions in the negatively behaving school principal category, school principals are criticized either because of their authoritarianism or of their avoidance behaviors. Balcı (1999) found that school principals are generally defined by negative metaphors such as authoritarian principal, disciplinary principle, rude principal, harmful principal, and insensitive principal. School principals who are not satisfied with their situation and do not see themselves as teaching leaders may not demonstrate effective leadership behavior and perform effective teaching leadership.

School principals who are not satisfied with their situation and do not see themselves as teaching leaders may not demonstrate effective leadership behavior and perform effective teaching leadership.

The bridge metaphor in the balancing school principal category reflects a holistic perspective. The candidate principals perceive the principal as the person who provides the connection and liaison between all stakeholders related to the school, such as teachers, students, and parents.

The balancing school principal function of the school principalship works like a regulator in terms of ensuring organizational harmony and organizational continuity within the school. The school principal is the main key point that can keep all stakeholders together inside and outside the school.

For this reason, the unifying feature of a school principal can be interpreted as necessary for schools and as a positive result for teachers. To examine the metaphors making up the superior power user principal category, prospective principals emphasize the power of the principal. Fennel (1996) finds the metaphors entitled powerful and ruling under the category leadership and the relational appearance of power. Aydođdu (2008) identified the metaphors commander, king, boss, lion, and police under the school principals as an authority element category. Koşar and Çalık (2011) found that personal power is a power style used in the school principalship, but that the reward power within the office power is more important than the legal and coercive power. The legal and bureaucratic authority of the school principal supports the power factor.

To consider the metaphors constituting the acting school principal category, school principals behave differently depending on the situation. Korkmaz and Çevik (2018) found that principalship understanding of the school principals is inconsistent and changing. To examine the metaphors indispensable school principal category, a least produced metaphorical category of the current study, the candidate principals perceive the principal as the source of absolute necessity at the school and as the source of energy. The importance of school principalship arises from the tasks of the administration. The school administration requires to keep the organization alive by following per objectives under the teachers' act. It also emphasizes the importance of school management, the authority, and the responsibility of the school administrator (Bursalıođlu, 2000). However, the indispensability can turn into a dangerous situation like a development watchdog for the teacher (Bredeson, 2000).

Comparing all categories with Yıldız and Ertürk's findings (2019), the principal is a leader only in the guiding school principal category. Various produced categories show similar characteristics to the features of the classic principalship features. In this respect, the candidate principals need to develop their competencies areas, like innovation, vision, strategic management, and administration.

Results and Conclusions

The current study aims at determining the metaphoric perceptions of the candidate principals. For this purpose, the metaphors produced for the concept of school principalship grouped under nine conceptual categories. Each metaphor used in this study reveals different perceptions about the principals. Various terms about who the school principals are, how they work, and what their duties are defined. The provided metaphorical definitions of school principalship may promote a better understanding of how to be a better school principal.

Examining findings in the current study, the candidate principals see the school principals as the guiding leaders. In this respect, a school principal is a role model, an example for candidate principals, and most of them act as a conductor.

To understand the findings, the candidate school principals perceive the school principal as a guiding leader. In this respect, we can say that school principals are an example for principal candidates, and most of them act as a conductor when they become school principals. As a result of the research, the perceptions of the principal candidates about the school principalship are generally positive. However, using the negative perception, school principals should undergo a series of in-service training. Negative perceptions show that the development of the school is to be insufficient in the education system, which conversely may cause the principal to become inadequate in other schools by taking that principal as an example. The school principal is the place of work. It is not just a place to skip status, increase income, or act on your own. Among the metaphors, the school principals mostly carry out technical or hierarchical processes. There are no metaphors produced on school culture, human relations, innovation, entrepreneurship, and sustainability.

Recommendations

Since the candidate principals will be the future principals throughout the education system of North Cyprus, pieces of in-service training require designing how to promote positive perceptions of the school principals. The number of studies on the desire of vice-principals and teachers to be school principals should be increased. Vice-principals' and teachers' aspirations to be school principals should be managed in a healthy way to support the school and to motivate teachers.

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