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SCALE FOR DESIGNING THE FUTURE VALIDITY AND RELIABILITY STUDY

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Abstract

The purpose of this study is to research the validity and reliability of the Turkish version of Designing my Future Scale developed by Di Maggio et al (2017) for the adolescents. Study had been carried out with 360 students in total who randomly selected from grades 9 and 10 from Namık Kemal High School, Bekir paşa High School and Erenköy High School at the Northern part of the Cyprus. The scale has been translated into Turkish by three experts who are advance in English language to provide the linguistic equivalence. Translation of the scale into Turkish is done by two persons who are advanced in English and a person whose mother language is English and advance in Turkish. Final version is drafted by two researchers by comparatively evaluating the developed scale. Before the exploratory factor analysis, normality test, Barlett's tests for sphericity are carried out to see if the scale is factorable or not and then exploratory factor analysis are carried out by examining the Kaiser-Meğer-Olkin (KMO) coefficient. To test the construct validity, structures are tested with confirmatory factor analysis. It is identified that original scale that has 19 items has 18 items and two factors structure in Turkish culture. Criterion-related validity is found related with the Satisfaction with Life Scale and Career Adaptability Scale in a positive way. For reliability analysis of the Designing my future Scale, Cronbach alpha test and split-half test and total item correlations are researched. Internal reliability coefficient is found 88 in total, future orientation dimension 87, resilience dimension 77 of the Designing my future Scale. Those findings show that Turkish version of the Designing my future Scale is a valid and reliable measurement tool that can be used career training studies and counselling services during adolescence period.

Keywords: Future designing, future orientation, resilience, life designing

INTRODUCTION

When the business world goes far from the stable structure and permanence, career change becomes more common. (Watson and Stead, 2017). Together with the fragmentization and diversification of the employment structure, well-known meanings of the working lost their validity for the working class. This situation makes employees to move forward in more uncertain, unstable, vulnerable socio-economic life (Yılmaz, 2019). Together with a career change, individuals have to gain new skills in order to adapt to the changes while needing to learn and be in interaction during their work lives (Tuckett, 2017). By taking into consideration the uncertainty raised for the identification of the individual career paths of the future and youth, focusing on a life project is a development duty that youth needs to give an important decision during the last years of the school for their educational and professional future. This duty is close related with the duty of personal and professional self-identification of an individual. (Aleni Sestiko et al, 2015).

"Complexity of the labour force is seen as a risk factor for development of the future thinking skills of the youth (Stoddard et al 2011). In this regard youth should develop their skills to dream of possible several scenarios for the future in order to indentify and direct their professional identities and careers (Atane and O'Neill 2001, Savickas and others, 2009). In this regard many studies that were conducted till today make emphasis to the importance of the Future orientation and resilience. (Fusco et al, 2018; Hatala et al 2017; Maggio et al 2017, Santilli et al 2017). There are limited scales on the future orientation and resilience during adolescence period (With Adolescent resilience dimension; Baruth &

Carroll, 2002; Connor & Davidson, 2003; Hjemdal, Friborg, Stiles, Martinussen, & Rosenvinge, 2006; Sapienza &Masten, 2011; Prabhu, Shekhar, & Phillip, 2016; Bluth, Mullarkey, & Lathren, 2018) Also limited measuring tool had been developed regarding the future orientation dimension (Gjesme, 1979; Stratman, Gleicher, Boninger, & Edwards, 1994; Zimbardo, Boyd, 1999; Husman & Shell, 1996; Rapange, Brouwer, Van Exel, 2009; Miguel, Paixão, Silva, Machado, 2017; Banerjee, Sharma, Chaterjee, 2008; Topa, Zacher, 2018). During the literature research, only scale that consists both dimensions in a single structure during the adolescence period was developed by Maggio et al (2017). Since it is thought that developed scale is going to provide cross-cultural verification with this adaptation study, it is important. Besides during the literature research no single structured scale is found in the Turkish culture that measures the future orientation and resilience. It is thought that an important gap in the field will be filled with this adapted scale. This adapted scale can be especially important for the individuals during adolescence period. It can be effective to identify and support the students who need support during the decision making processes and implementation of the precautionary measures.

According to career development theory firstly, Life Designing Approach that was developed to help individuals to construct their career lives within existing changing societies is a paradigm for the career counselling that based on the social structuring and takes the career development into consideration as a result of dynamic interaction between humans and environment. It encourages people to reflexively dream and construct a life organized with multiple roles and that is applicable to guarantee the welfare and harmonic functioning. (Savickas, 2015). Future orientation and resilience are accepted as two main dimensions that are required to be taken into consideration while making assessment especially the personal future creation possibilities according to life designing approach of the individuals. (Savickas et al., 2009). According to Crockett et al (2011), identification and creation of the professional identity is one of the most important duties of the adolescence. In this period, adolescent starts to think and make plans about the adult life. In the process adolescents need to gain experiences that help them to shape their perceptions about future including the possibilities and opportunities and their own expectations (Nurmi, 2004). Development of more sophisticated and realistic perspective according to the period takes place Within those new skills. Future time perspective is a personality trait including thoughts, feelings and actions of the people about the future (Lyu and Huang; 2016). Future orientation is creation of a perception about near and far future wishes, plans and expectations of an individual (Nuttin and Lens, 1985; Seginer and Schlesinger, 1998; Seginer and Shoyer, 2012). All of those are required to determine personal targets, evaluation of future possibilities and taking important decisions and obligations. Thinking about the future is a foundation of human motivation and behaviours in the daily life (Gao and Chan, 2015).

Gao and Chan (2015) found in the study they conducted among 677 adolescents from grades 7 and 9 that future orientation had positive relations with school bonds and negative relations with school bullying. Hilpert and Husman notified that future orientation plays an important role in improvement of the learning behaviours from the study they conducted with 546 engineering students. Barber and Munz (2009) in the study they conducted with 255 students; Peetsma and Van der Veen (2011) in the study they conducted with 584 students found that there was an increase in the learning behaviours of the individuals who had future time orientation and they had higher academic success. Cabras and Mando (2018) with the data obtained from the study they conducted (373 Italian-Spanish students) stated that future orientation and career adaptability were the important factors for the individuals to cope with difficulties and increase the satisfaction with life. Finally in the studies conducted it was identified that future time orientation and resilience increase the satisfaction with life and career adaptability. (Santilli et al, 2017; Maggio et al., 2017).

Resilience is being understood as a positive adaptation situation generally in the middle or after an important stress, difficulty or risk (Masten,2014). Resilience is defined as individials' characteristics to cope with difficulties, capacity of coping with difficulties by using own resources and awareness about the talent to contribute their own personal development (Greenberg, 2011). This term does not

only being used to define the successful adaptation period after traumatic situations, but also it express the abilities required to cope with the uncertainties of our era (Sapienza and Masten, 2011). Indomitable individuals have the ability to recover from failures, be more resilient to diseases and adapt or improve when they face with problems (Smith et al, 2008). Adolescents realize their inner thoughts and feelings more with increasing age (Weil et al, 2013) and start to formulate the concept of selfhood (Byrne and Shavelson, 1996). This development phase is characterized with multiple transitions related to physical, cognitive and socio-emotional progress that causes physiological and environmental difficulties and also most of the time opportunities. Developing strategies to cope with difficulties as strengthen the resilience and being open to new experiences may potentially ease to pass this development period through. (Bluth et al, 2018). Resilience means also "motivation power that everybody has inside and push them run after to the wisdom, self realization, altruism and to be harmonized with a spiritual power source. Increasing the understanding of resilience is vital for improvement of the lives of the people of all ages (Neville, 2017). Future orientation and resilience are accepted as two main dimensions that need to be taken into consideration while evaluating especially the personal future creation possibilities according to life designing approach of the individuals (Savickas et al., 2009) Studies show that adolescents with higher resilience level adopt healthier behaviours (Murphey et al 2013). It is believed that resilience plays an important role to increase the satisfaction with life of an individual as an important positive psychological element (Mak et al., 2011; Hu et al., 2015).

Purposes of the Current Studies

The reason of our new scale adaptation is the lack of developed measuring tool to assess both the future orientation and resilience dimensions under a single structure for the individuals in adolescence when a literature screening in Turkish culture is carried out. Upon the emphasis of career structuring theory future designing approach on the importance of the matter, as a reply to the call of Fulko et al (2010), Di Maggio et al. (2017) to verify cross-cultural differences regarding the future orientation and resilience perception, we think that assessment with a single scaling tool is especially important by saving time from this two dimensional time. For this purpose in the study; after providing linguistic equivalence, validity of confirmatory factor analysis of Designing my future scale , Satisfaction with life and Career adaptability scale and criterion correlation validity and reliability of the scale are analyzed.

METHOD

In this part, information on working group, preparation of the scale items, validity and reliability studies were provided.

Adaptation Process

In the study it was decided that this scale is necessary for our country and then required permissions for the adaptation are taken from the developers of the original scale. Original version of the scale was translated into Turkish by three experts who have advanced English. Then translated scale was back translated into English by two persons who have advanced English and one expert (Three in total) whose mother language is English and has advanced Turkish. Translations were assessed by two expert researchers and final version was completed. To define the psychometric features of the Turkish form developed, implementation phase of the scale adaptation process was started.

Working Group

Working group of the study is determined randomly from 3 different state schools at Famagusta that are coincidentally selected. Working group of the study consists of 376 students in total who participated voluntarily by random sampling from grades 9 and 10 during the spring period of 2018-2019 school years. It is defined that 33.89% of the students are 14 years old, 48.06% are 15 years old and 18.06% are between the ages of 16-19, 63.61% of the students are female and 36,39% are male,

27.50% of the students are from Namık Kemal High School, 38.06% are from Bekir Paşa High School and 34.44% are from Erenköy High School, 68.61% of the students are from grade 9 and 31.39% are from grade 10.

After students are informed and required explanations are given about the study that their names will not be received, personal information will be kept confidential, the students who accepted to participate to the study filled the scales. After this practice, obtained data is examined and 16 scales are kept out of the assessment due to identification of problems as incomplete or over share marking.

Data Collection Tools

Designing my future Scale. It is a 5 point likert scale consisting of 19 items developed by DiMaggio et al (2017) to evaluate future orientation and resilience of the individuals in adolescence period. It comprises of two subscales as future orientation and resilience. Satisfaction with Life Scale, Career Adapt-Abilities Scale and Visions about Future scale were used to provide construct validity of the scale. Two factors scale with 19 items comprises of 38,47% of the variance. First factor consists future orientation with 11 items that comprise of 22.62% of the variance. Second factor consists of 8 items that express resilience and comprise of 14.97% of the variance. Factor loads differ between 40 and 77. Cronbach alpha internal consistency reliability was found 88 for future orientation and 80 for resilience. Distinctive validity of DMF was tested by examining the correlations with Career Adapt-Abilities Scale, Visions about Future and Satisfaction with Life Scale measurements. Future Orientation and resilience and Career adapt-Abilities resources (anxiety, control, curiosity and trust; CAAS) showed correlation with Visions for Future SubScales Hope and Optimism and Satisfaction with Life. Besides negative and poor correlations were observed between DMF factors and pessimism (VAF). Strong correlations were found between future orientation and Hope (VAF).

Career Adapt-Ability Scale. Shorter version of CAAS (Maggiori et al, 2017) was developed by selecting three items having the higher factor loads for each subscales from 24 items version of the CAAS. Confirmatory factor analysis with selected 12 items supports four factors structure that is the same with the one used in the longer version. CAAS-SF shows almost perfect correlation with 24 items version and convergent validity that has good internal reliability. Career Adapt-Ability Scale- a short version with 12 items of a Short Version was verified in three different age groups in Turkey by Işık, Yeğin, Koyuncu, Eser, Çömlekçiler, Yıldırım; 2018). Scale points were at the sufficient level, had high internal consistency and 4 weeks test and retest reliability, showed good fit with original four factor model, factorial invariance was determined among gender and age groups.

(Reliability coefficients differed between .70 and .85 for high school sample, .76 and .90 for undergraduate sample, .80 and .91 for working adults sample). It showed strong convergence feature with 24 items version. It showed negative relations with Continuous Anxiety Inventory and Work Stress Scale. Also it showed positive relations with Career Self Efficacy.

Satisfaction with life Scale. Turkish adaptation of the “Satisfaction with Life Scale” that original version was developed by Diener, Emmons, Larsen and Griffin (1985) was done by (Dağlı and Baysal, 2016). Cronbach internal consistency coefficient was determined as .88 and test-retest reliability was determined as .97. Factor analysis results prove that scale shows a single factor structure and comprises of 5 items as the original version of the Satisfaction with life Scale. Original version of the Scale was a self assessment scale comprises of single factor, five items and 7 point likert type grading. Each item was being evaluated in accordance with the respondence system (1:Strongly Disagree- 7: Completely Agree) that graded with 7 point likert type. Relevant scale was adapted into Turkish by Köker (1991) and used by different researchers in Turkey as 7 point grading. Scale that was translated into Turkish by Dağlı and Baysal (2016) was in 5 point likert type.

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FINDINGS

Following practices were carried out within the scope of validity reliability study of the Designing my future Scale used in the Study.

Construct Validity of the Designing my Future Scale

Exploratory Factor Analysis and Confirmatory Factor Analysis were used to examine construct validity of the Designing my Future Scale.

Exploratory Factor Analysis

First of all Exploratory Factor Analysis was used to out forward the factor structure of Designing my Future Scale. In accordance with the data obtained from the field, exploratory factor analysis was used to identify theoretical relations came out from the measurements observed or whether the concepts that were presumed measured by the elements of the scales comprises of series of items really measure this structure or concept and most importantly to identify independent factors that comprise this structure. (Büyüköztürk, 2012)

Before the exploratory factor analysis, normality test, Barlett's tests for sphericity were implemented and Kaiser-Meğer-Olkin's (KMO) coefficient was examined to assess whether the scale is factorable or not. KMO coefficient gives information if the data matrix is appropriate for the factor analysis or not and on the fitness of the data structure for identification of the smallest factor number. KMO is expected to be higher than 0,60 for factorability. Barlett test examines if a relation exists between the variables on the basis of partial correlations (Büyüköztürk, 2009).

Table 1. Results of KMO and Bartlett's test for sphericity

Kaiser-Meyer-Olkin Coefficient		.904
Bartlett's Test for Sphericity	Estimated χ^2	2192.818
	sd	153
	p	.000*

**p<.05*

It was determined that data related to the Designing my future Scale conformed with the multivariate normal distribution, chi square value belongs to Barlett test was 2192.818 (p<.05) and KMO coefficient was .904. Thus it was determined that exploratory factor analysis can be implemented for Designing my Future Scale. While exploratory factor analysis is being implemented to the Designing my future Scale, principal component analysis method was used and varimax rotation was applied to the data, item "10. I have certain targets for the future" that was below .30 factor loading was taken out from the scale and exploratory factor analysis was repeated. Final findings regarding the factor structure of the scale is given in Table 2.

Table 2. Designing my future scale exploratory factor analysis results

Component	**Initial Eigenvalues**			**ExtractionSums Of SquaredLoadings**			**RotationSums Of SquaredLoadings**		
	Tot.	**% of Var.**	**Cum %**	**Tot**	**% of Var.**	**Cum %**	**Tot.**	**% of Var.**	**Cum %**
Factor 1	6.17	34.29	34.29	4.66	25.89	25.89	6.17	34.29	34.,29
Factor 2	1.84	10.24	44.53	3.36	18.64	44.53	1.84	10.24	44.53

According to Table 2 it was determined that there were two factors that eigen values were higher than 1 which conformed with the original version of Designing my Future Scale. Eigen value of the first factor that took place in the scale is 6.17 and this factor by itself could explain the 34.29% of the total variance. Eigen value of the second factor in the scale was 1.84 and variance that it could explain was

found 10.24%. Two factor structure of the Designing my Future Scale explained 44.53% of the total variance.

Table 3. Designing my future factor matrix with rotated factor loadings

	F1	F2
1. Imagine my future makes me feel energetic.	.68	
2. I like to think about where I will be in a few years	.72	
3. About my future I have many dreams.	.60	
4. I am passionate about realizing my dreams in the future	.68	
5. Think about the future makes me feel excited.	.75	
6. Think about my future makes me feel very hopeful	.71	
7. I like to dream about what the future will bring me.	.71	
8. I frequently think about what I can do to have a good future.	.57	
9. I like to think about my targets for the future	.72	
11. when I think about my future I pay attention to the type of person I'd like to be	.40	
12. I think I'm a strong person.		.59
13. I do my best to reach my goals		.60
14. I think I can overcome all the problems that I face		.67
15. Even if I am under pressure I can concentrate on what I want to do and do it.		.56
16. I can see the unexpected and different sides of the things.		.41
17. I can cope with the difficulties to reach my goals.		.70
18. Overcoming the stressful events makes me stronger.		.67
19. When I fail I don't easily give up		.60

When Table 3 was reviewed it was determined that in the first factor that explained 34.29% of the total variance, 10 items exist as

"1.Imagine my future makes me feel energetic",

"2. I like to think about where I will be in a few years",

"3. About my future I have many dreams.",

"4. I am passionate about realizing my dreams in the future",

"5. Think about the future makes me feel excited.",

"6. Think about my future makes me feel very hopeful"

"7. I like to dream about what the future will bring me."

"8. I frequently think about what I can do to have a good future."

"9. I like to think about my targets for the future" and

"11.when I think about my future I pay attention to the type of person I'd like to be." and factor loadings of those items differ between .40 and .75 and this factor is named as "Future orientation".

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In the second factor of the scale, it was determined that there are 8 items whose factor loadings differ between .41 and .70 as "15. Even if I am under pressure I can concentrate on what I want to do and do it.",

"16. I can see the unexpected and different sides of the things.",

"17. I can cope with the difficulties to reach my goals.", "18. Overcoming the stressful events makes me stronger." And

"19. When I fail I dont easily give up". This factor is names as Resilience.

Confirmatory Factor Analysis

After identification of factor structure of the Designing my Future Scale, confirmatory factor analysis was applied to determine the appropriateness of the factors defined. Conformity Factor Analysis was used to define whether the variance groups that contribute to the determined factors are sufficiently represented by those factors or not (Aytaç and Öngen, 2012; Eryilmaz, Satici, & Deniz, 2020).

Table 4. Designing of future scale CFA goodness of fit values (Model 1)

Goodness of Fit Index	Calculated values	Fitness
χ^2/sd (Chi square / Degree of Freedom)	1.676	Good Fit
The Root mean Square Error of Approximation (RMSEA)	.043	Good Fit
Normed Fit Index (NFI)	.903	Acceptable
Comparative Fit Index(CFI)	.958	Good Fit
Goodness of Fit Index (GFI)	.936	Acceptable

According to Klein (2005) when the degree of χ^2/sd is below 3 it shows a good fit. Accordingly, it was observed that χ^2/sd degree of the Designing my Future Scale is 1.868 and scale has a good fit in terms of χ^2/sd. The Root mean Square Error of Approximation (RMSEA) value of the Designing my Future Scale was found .0043. According to Brown (2006) when The Root mean Square Error of Approximation value is lower than .50 it shows a good fit. In this regard it was determined that scale is at the good fit level in terms of The Root mean Square Error of Approximation (RMSEA).

Tabachnick and Fidell (2001) indicated that when Normed Fit Index (NFI), Comparative Fit Index and Goodness of Fit Index (GFI) values are between .90-.95 scale has an acceptable fit, if value are above .95 scale has a good fit. Regarding the Designing my future Scale NFI=.903, CFI=.958 and GFI=.936 were found and Scale has a good fit in terms of CFI and acceptable fit in terms of NFI and GFI. After determining the Goodness of Fit Indexes regarding the first model, second model was created and findings were given below.

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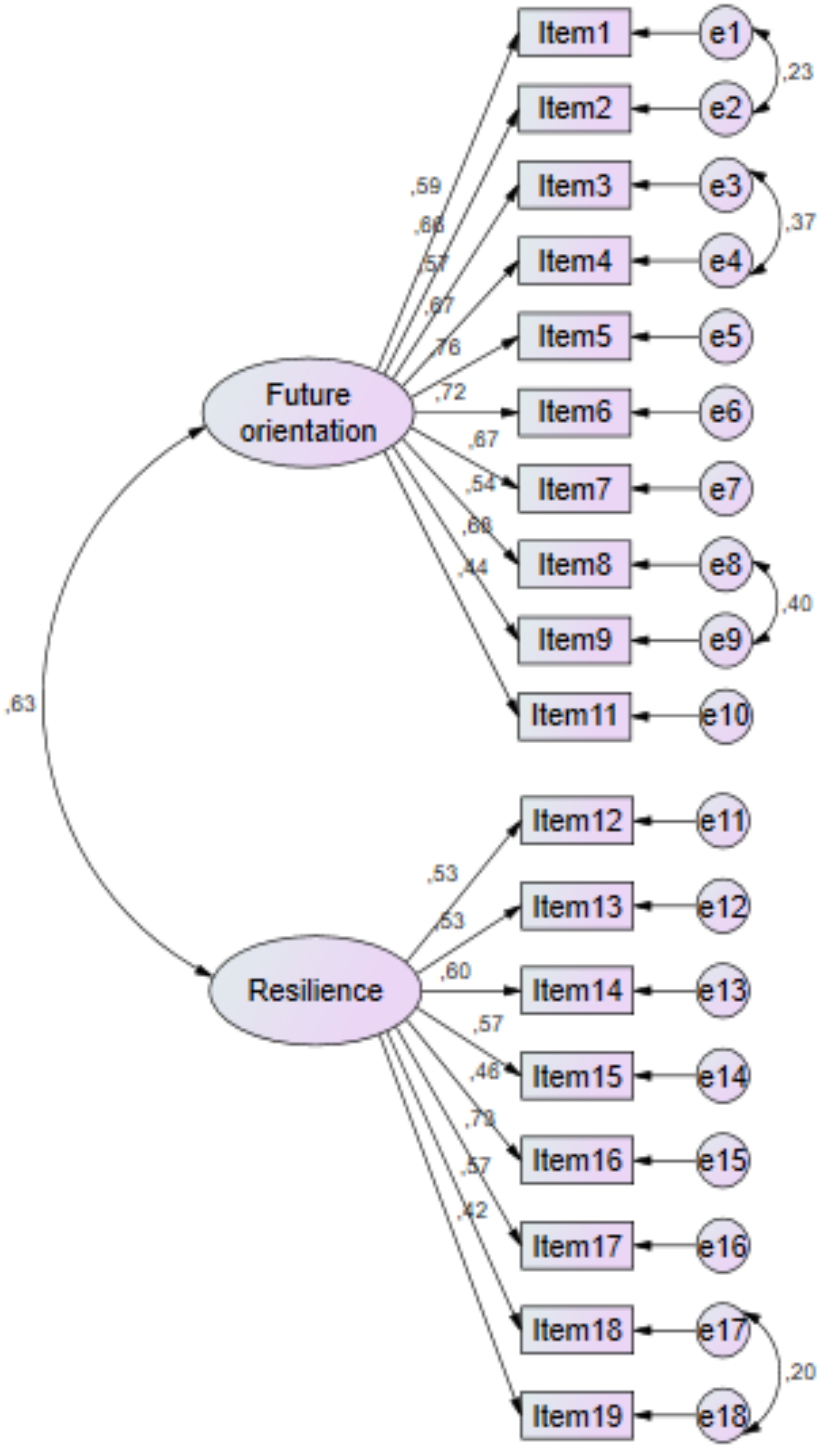

Figure 1. Designing my future scale, CFA (Model 1)

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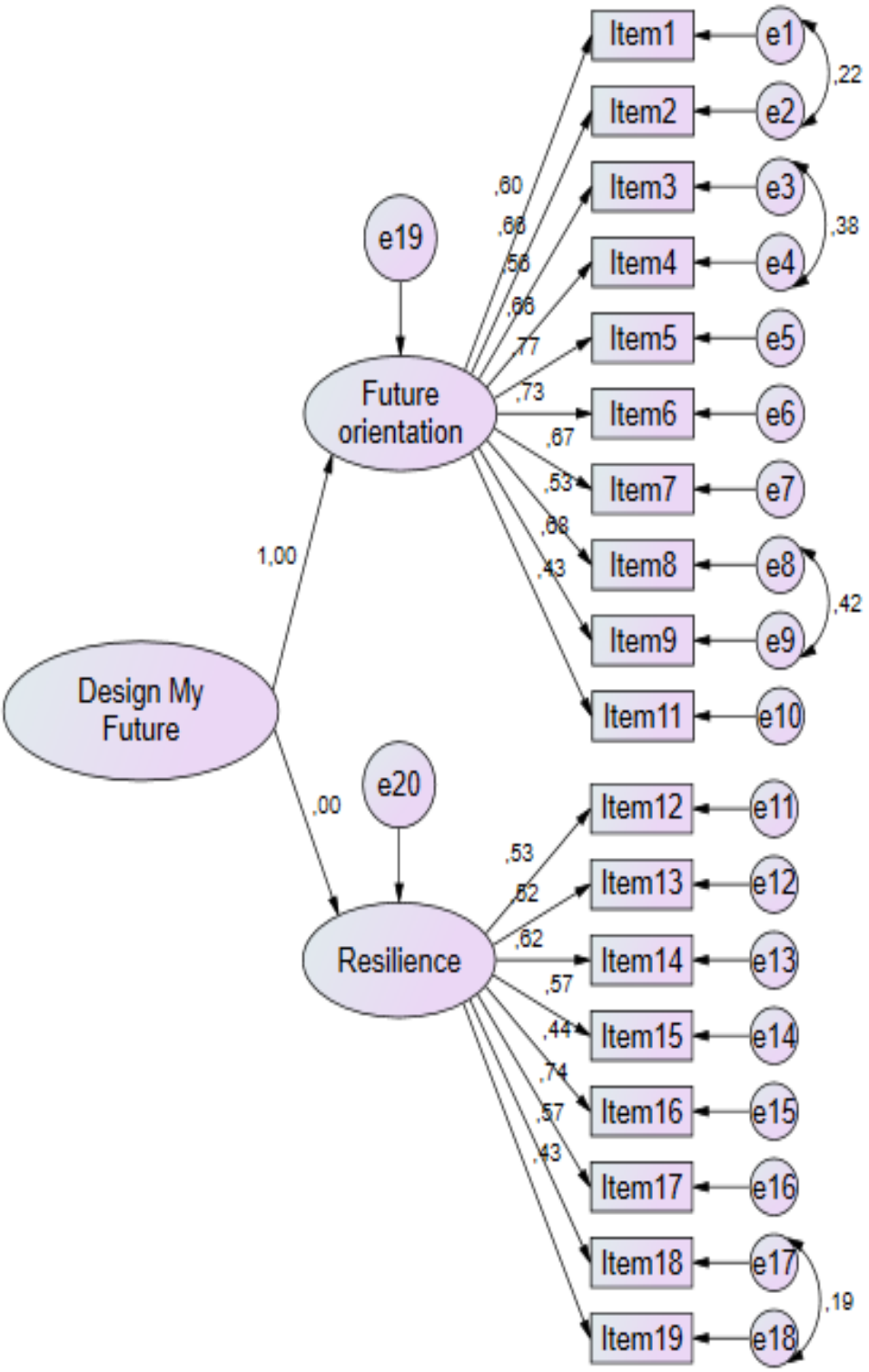

Figure 2. Designing my future CFA (Second Model)

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Table 5. Designing my future CFA goodness for fit values (Second Model)

Goodness for Fit Indexes	Calculated value	Fitness
χ^2/sd (Chi square / Degree of Freedom)	2.517	Good Fit
The Root mean Square Error of Approximation (RMSEA)	.065	Acceptable
Normed Fit Index (NFI)	.853	Bad Fit
Comparative Fit Index(CFI)	.905	Acceptable
Goodness of Fit Index (GFI)	.913	Acceptable

When goodness of fit indexes given in Table 5 were observed; χ^2/sd value of the Designing my future Scale was found 2.517 and scale has a good fit in terms of χ^2/sd and it was determined that The Root mean Square Error of Approximation (RMSEA=0,065) shows an acceptable fitness according to goodness of fit index. While Designing my Future Scale is not within the acceptable levels in terms of Normed Fit Index (NFI=.853), Comparative Fit Index (CFI=.095) and Goodness of Fit Index (GFI=.913) have acceptable fitness.

When Exploratory and Confirmatory factor analysis findings related to the examination of the Designing my Future Scale given above were evaluated, it was observed that construct validity of the scale is ensured.

2. Reliability of Designing my Future Scale

Cronbach Alpha Test, split half test and total item correlations were examined to analyze the reliability of Designing my Future Scale and findings obtained are given below.

Table 6. Designing my future scale reliability analysis results

			Value
Designing my Future Scale in General			.883
Future Orientation			.874
Resilience			.777
Cronbach alpha	Part 1	Coefficient	.876
		No of items	9
	Part 2	Coefficient	.781
		No of Items	9
Correlation between parts			.551
Spearman-Brown Coefficient			.710
GuttmanSplit-Half Coefficient			.704

When Cronbach Alpha test results were examined related to the Designing my Future Scale; it was determined that coefficient related to the Future Orientation sub-dimension that takes place in the Designing my future scale is .874 and coefficient of the resilience sub dimension is .777 and alpha coefficient that belongs to the general of the scale is .883. According to Büyüköztürk (2009) when Cronbach alpha coefficient is higher than .70 it shows that it is reliable. Thus designing my Future Scale has an internal consistency and it is a reliable measuring tool in terms of Cronbach Alpha test.

When the results of Split half test that applied to Designing my Future Scale were examined; Cronbach Alpha value which was calculated for the first half of the scale consisting of 9 items was found .876, Cronbach Alpha value was found .777 for the second half of the scale consisting 9 items

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and it was determined that correlation coefficient between two halves is .551. Designing my Future Scale was found reliable in terms of split half test.

Table 7. Designing my future scale total item correlations

	Total Item Correlation
1. Imagine my future makes me feel energetic.	.493
2. I like to think about where I will be in a few years	.576
3. About my future I have many dreams.	.533
4. I am passionate about realizing my dreams in the future	.617
5. Think about the future makes me feel excited.	.638
6. Think about my future makes me feel very hopeful	.603
7. I like to dream about what the future will bring me.	.557
8. I frequently think about what I can do to have a good future.	.545
9. I like to think about my targets for the future	.635
11. when I think about my future I pay attention to the type of person I'd like to be	.433
12. I think I'm a strong person.	.434
13. I do my best to reach my goals	.445
14. I think I can overcome all the problems that I face	.447
15. Even if I am under pressure I can concentrate on what I want to do and do it.	.452
16. I can see the unexpected and different sides of the things.	.408
17. I can cope with the difficulties to reach my goals.	.571
18. Overcoming the stressful events makes me stronger.	.466
19. When I fail I don't easily give up	.338

Besides, it was determined that total item correlations of all the items take place in the Designing my Future Scale are important ($p<.05$) and lower correlation coefficient is .338 and highest correlation coefficient is .635. As a consequence of the validity-reliability study which the details were given above, it was determined that designing my Future Scale is a valid and reliable measurement tool.

Criterion-related validity of the Designing my Future Scale

Satisfaction with Life Scale and Career Adaptability Scale were used to examine criterion-related validity of the Designing my Future Scale. Within the scope of criterion-related validity, correlations between Designing my Future Scale and Satisfaction with life and Career Adapt-ability Scales were reviewed.

When Table 8 was reviewed it was determined that there is a positive, statistically meaningful correlations with medium and low power between the points obtained from Designing my Future Scale in general ($r=326$; $p<.05$) and Future orientation ($r=.262$; $p<.05$) and Resilience ($r=.341$; $p<.05$) sub dimensions of the scale and points obtained from Satisfaction with Life Scale. When the points taken from the Designing my Future Scale in general and its sub dimensions' increase, points obtained from the Satisfaction with Life Scale also increase.

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Table 8. Correlations between designing my future scale and satisfaction with life and career adaptability scales

		Future Orientation	Resilience	Designing my Future Scale
Satisfaction with Life Scale	r	.326	.262	.341
	p	.000*	.000*	.000*
Anxiety	r	.567	.441	.585
	p	.000*	.000*	.000*
Control	r	.452	.511	.543
	p	.000*	.000*	.000*
Curiosity	r	.403	.431	.472
	p	.000*	.000*	.000*
Trust	r	.385	.425	.458
	p	.000*	.000*	.000*
Career Adaptability Scale	r	.579	.577	.659
	p	.000*	.000*	.000*

*p<.05

It was determined that there is a positive, statistically meaningful correlations with high power between the points obtained from Designing my Future Scale in general (r=.579; p<.05) and Future orientation (r=.577; p<.05) and Resilience (r=.659; p<.05) sub dimensions of the scale and points obtained from Career Adaptability Scale in general.

Accordingly, when the points taken from the Designing my Future Scale in general and it's sub dimensions increase, points obtained from the Career Adaptability Scale also increase.

Table 9. Comparison of designing my future scale points of the students according to their ages (n=360)

	Age	N	Mean	Std.Dev.	Bottom	Top	F	p	Diff.
Future Orientation	14 Age	122	40.56	6.93	21	50	3.295	.038*	a-b
	15 Age	173	38.36	7.61	16	50			
	16-19 Age	65	39.85	7.83	10	50			
Resilience	14 Age	122	30.66	5.67	13	40	.050	.951	
	15 Age	173	30.58	5.00	18	40			
	16-19 Age	65	30.40	6.18	12	40			
Designing My Future Scale	14 Age	122	71.22	11.00	43	90	1.475	.230	
	15 Age	173	68.94	10.94	43	90			
	16-19 Age	65	70.25	12.87	22	89			

*p<.05 a:age 14, b:age 15, c:age 16 and between 19.

At Table 9 ANOVA results are shown regarding the comparison of designing my Future Scale points of the students participated to the research according to their ages.

When Table 9 is reviewed it is identified that difference between the points that students obtained according to their ages from sub factor Future orientation of Designing my future scale is statistically at a meaningful level (p<.05). Points obtained by the students at the age of 14

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($\bar{x}$=40.56±6.93) from Future orientation sub factor are higher than the students at the age of 15($\bar{x}$=38.36±7.61). It is seen that there is no difference which is statistically at a meaningful level between the points that students got from Resilience factor of the designing my future scale and the scale in general (p>.05).

Table 10. Comparison of designing my future scale points of the students according to their ages (n=360)

	Gender	n	Mean	Std.Dev.	t	p
Future	Female	229	39.51	7.36		
Orientation	Male	131	39.14	7.70	.450	.653
Resilience	Female	229	30.58	5.49		
	Male	131	30.58	5.38	.006	.995
Designing	Female	229	70.08	11.16		
My Future Scale	Male	131	69.72	11.69	.294	.769

At Table 10, independent Sample t-test results were shown that applied to compare points obtained by the students according to their ages from designing my Future Scale.

When Table 10 is reviewed, it was identified that there is no difference statistically at a meaningful level between the points that students got according to their ages from Designing my Future Scale in general and Future Orientation and Resilience sub factors (p>.05). Designing my Future Scale points of the male and female students are similar.

DISCUSSION

Designing my Future Scale was tried to be verified with the current study for the adolescents during the high school period within the Turkish culture. With this aim, linguistic equivalence was provided, factor structures were tested, reliability values were calculated and relations with career adaptability and satisfaction with life scales were examined. Different than the original scale, item "10. I have certain targets for the future" of the adapted scale was taken out which factor load is lower than .30 according to the Exploratory Factor Analysis result and it is identified that scale has 18 factors and 2 hierarchical structures. When Designing My Future (2017) Scale is implemented in the Turkish culture, full version shows similar psychometric features. Existing findings provide the first and only support for the tool developed by.

Di Maggio et al (2017). Cronbach alpha coefficient value was found highly high .88 and for the sub dimensions it was found satisfactory until the high levels (For Future Orientation .87 and Resilience dimension .77). It was determined that that there is a positive, statistically meaningful correlations with high power between the points obtained from Designing my Future Scale and points obtained from Career Adaptability Scale in general. Accordingly, when the points taken from the Designing my Future Scale in general and it's sub dimensions increase, points obtained from the Career Adaptability Scale also increase. It was determined that there is a positive, statistically meaningful correlations with medium and low power between the points obtained from Designing my Future Scale and points obtained from Satisfaction with Life Scale. In the original scale which was developed by Di Maggio et al. (2017) and also in the similar the scale study conducted by Santili et al. (2017) it was identified that Scale is correlated with Satisfaction with Life Scale and Career Adaptability Scale. When the points taken from the Designing my Future Scale in general and it's sub dimensions increase, points obtained from the Satisfaction with Life Scale also increase. As a result, positive relation with Career Adaptability and Satisfaction with Life Scales was found.

Inferences for Implementation

Uncertainties of the business world, development of the technology, creation of new work fields and adolescents who can't not for a see the future make the development of future orientation and resilience dimension essential for the career development. When the time limitations of the business

world of today is taken into consideration measuring the future orientation and resilience dimensions with this tool in one single structure may provide convenience and practicality. It is thought that for the development of career training programmes, assesment of the career development, identification of individuals who need career development and education, taking necessary precautions, using them as pretests and posttests for assesment of the effectiveness of the developed programmes may give advantages. Existing results; show that Turkish version of the Designing my Future Scale is available to use for the researchers and implementers who are willing to evaluate measurability sources for the adolescents at the high schools. Results are important to examine the future orientation and resilience especially during adolescence period since they have a role in life designing and they contribute to the career adaptability and satisfaction with life (Masten & Tellegen, 2012). Researchers can use them in the studies to identify the individuals who need career counselling training and to monitor the improvements of the individuals who get career training. Especially in today's conditions with time limitations, having the tool short, current, with less number of items and to measure both dimensions (future orientation and resilience) in one single structure may give many advantages. Also in our research future orientation was found higher for the age group of 14 than age group of 15, and resilience was found equal for other age groups. Resilience was evaluated in terms of gender. According to the analysis results, it was identified that there was no meaningful statistical difference between the points students got according to their genders from designing my future Scale in general and sub factors as Future Orientation and Resilience. In contrary to our study, according to the research of Cannor and Davıson's (2003) resilience dimension was found higher in female adolescents. The reason can be explained by not having equal number of male and female students in our study. Findings need to be confirmed with many studies to be conducted.

Limitations and Orientations for the Future

While evaluating this research, limitations should also be taken into consideration. First and only implementation of the Designing my Future Scale in different culture was in Turkish culture. Implementation of the scale in different cultures is required for cross cultural validity and reliability. As a consequence, designing my Future Scale looks a valid and reliable tool to measure future designing sources for adolescent people in the Turkish culture. Especially it is thought that it will provide advantages to career development and counselling studies in terms of time limitation and practicality. In our study gender invariance and measurement invariance assumptions were not tested. In further studies it will be beneficial to evaluate those two assumptions. More studies are needed for repeatability of the factor structure and verifiability of the psychometric features.

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