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The Philosophy of Turkish and Ghanaian Curriculum Design Orientations of Teacher Candidates

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Abstract

This study aims to investigate the curriculum orientations of schools in Turkey and Ghana and to examine the relationship between curriculum orientations. The quantitative method (descriptive study) was adopted in this questionnaire survey-based study. This study was conducted in the Fırat University, Elazığ-Turkey and University of Education - Winneba, Kumasi-Ghana. Mean and standard deviation for the overall of the curriculum orientations and for each orientation were obtained. The results showed that the mean of Turkish students was higher than Ghanaian students in term subject-centred curriculum orientation. Meanwhile the for student-centred and problem-centred curriculum design orientations the means of Ghanaian students were higher than those of Turkish students. The country variable was found to be highly effective in classifying teachers in terms of curriculum design. Gender and department independent variables significantly differentiate teachers' views about curriculum design in some dimensions.

Keywords: Philosophy, Curriculum, Curriculum Design Orientation, Educational system.

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INTRODUCTION

Knowledge is one of the key elements of personal and social development. The information that meets the needs of everyday life about how a device or an object can be used has been a strategically superior tool over time. Therefore, meeting the need for information and the development of information are important educational tasks as well as acquiring the information.

Schunk (2011: 1) explained the content of learning as the acquisition and modification of knowledge, skills, strategies, beliefs, attitudes and behaviors. It is not possible today to transfer this content of cognitive, affective and psycho-motor behaviors through unstructured learning-teaching activities. In primitive societies, the information and culture required for the continuation of life were transferred to the younger generations randomly; however, in order to meet the individual learning needs, planned school education has become a demand of the today's societies. (Fer & Cırık, 2007:1). Basaran (1994) believes that an educational approach has started with the responsibility of the families and the society has started to take responsibility (Cit. Gültekin, 2017:2). Mialaret (2005: 8-10) examines the historical development of education and emphasizes that there are serious changes in the demand age, duration, purpose, scope (from a structure that prioritizes the development of intelligence to a structure that aims to develop all aspects) and understanding of education. Changes in the perspectives of the society towards education are also observed. Every member of society wants to regard education as a professional service for the development and prosperity of both their children and their community. This is a situation that encourages the use of curriculum in teaching. According to Tuncer & Berkant (2012), the most known way of introducing changes about the learning and teaching process to a wider audience is to prepare a curriculum and adhere to this curriculum.

Taşpınar (2014: 10), to define the curriculum, he includes planned activities both in and outside of the school in the scope of this curriculum. Curricula are regarded as a way of providing functionality to the education systems (Erden, 1998: 2). The success of the curriculum is mostly related to the education philosophy approach.

Educational Philosophies

The philosophy of education is counted as a starting point in the development of a curriculum and forms the foundations of the decisions about the curriculum. (Akpınar, 2010:21). In the general, philosophy is regarded as a field of knowledge (Gutek, 2001) that systematically explains the relationship of the universe with the human and the human with the universe. In educational philosophies, the scope by restricted further is reduced to a structure that targets teaching expertise. Aydın (2007: 4) thinks that the subject of social sciences, which includes education, is not the nature, but human and culture and also expresses that it is not possible to repeat the same events in the social sciences. According to him, the reasons why the events are handled independently of the laws are values, philosophical, religious and ideological differences within the historical context. Education processes can also be explained by this perspective. According to Ornstein & Hunkins (2014: 44) Philosophy is a necessary to explain why schools exist, which courses are valuable, how students learn, which methods and materials should be used. Philosophy science works as a kind of feasibility study before the curriculum is implemented. In terms of curriculum design, there are three basic design approaches: subject-centered, learner-centered, and problem-centered. (Ornstein & Hunkins, 2014:256).

Subject-Centered Curriculum Design Orientation

The content is in the foreground in the subject-centered curriculum design. Tucker (2011) believes that this curriculum design can be considered a favorite of many education systems. According to Ornstein (1982: 404), advocates of this design, thinks that this design is important because of the organizing of learning, easy recall of the information which has been taught, and the arrangement of books and materials based on the subject. Having various types, subject, field, wide

scope types of subject-centered design are based on essentialism and perennialism while correlation and process types are based on progressivism (Ornstein & Hunkins, 1993, Eryaman & Riedler, 2009). This curriculum design comes to the forefront with the characteristics of regarding learners' learning the subject enough, that there is unchanging universal knowledge, not being developed as a whole, and being able to make connections between subjects and courses (Akpınar, 2010: 39). Ellis (2015: 77) criticizes this design because it does not give enough room to innovative approaches. According to him, in the subject-centered design, it is not possible to take into account all the features of the curriculum and to meet the learner's needs. Targeting only cognitive domain in learning (Burul, 2018) is another subject of criticism.

Student-Centered (Learner-Centered) Curriculum Design Orientation

Learner-centered curriculum has played an important role in the curriculum design of many countries in recent years (Arceo, 2016). This curriculum design focuses on individual development and improvement (Ellis, 2015:31). This design, which cares about interest and experience, finds it useful if academic issues are valuable for the learner. This curriculum which is based on progressive, humanist and Gestalt psychology and it adopts a design that is formed in the process rather than a previously prepared (Akpınar, 2010:42). It aims to create opportunities for students to develop their learning in learner-centered curricula (Abdelmalak & Trespalacios, 2013). This curriculum design has two useful aspects for learners. Learners contribute to the formation of the curriculum and have the opportunity of multi-faceted learning (Emes & Clevelans-Innes, 2003; Eryaman, 2010). It is thought that these curricula can be applied at the level of elementary school where the teachers are more interested in their students since the education at high school only aims to prepare students to university degree (Alcı, 2014:74).

Problem-Centered Curriculum Design

This curriculum focuses on the real problems experienced by individuals and society (Ornstein & Hunkins, 2014:274). In this design based on progressive philosophy, the content is determined in relation to the problems as it is intended to restructure the society. (Akpınar, 2010:46). On the other hand, Baş (2013) bases the philosophical point of view of this design on the reconstructive philosophy, which is generally regarded as the continuation of pragmatism and progressivity. This design which is also called as community-centered is believed that the content in the textbooks and in-class trainings are to be related to the real world problems (Ellis, 2015:58). Demirel (2002: 52) states that the aim of this design is to develop students as well as their social and he says there are differences among their representatives in terms of individual balance.

Curriculum design approaches have several advantages and limitations when compared to each other. Nevertheless, it can be observed that learner-centered design has been adopted more recently. This means that the curriculum developers have determined how to teach. Constructivist approach is adopted in learner-centered curricula. It is believed that in learning constructivism, the learner is creative and self-organizing (Fosnot, 2007:37). According to this approach, the information is formed by the human and the individual characteristics affect this constructed knowledge. (Aydın, 2007:12). These features of constructivism necessitate a change in the duties of the teacher and the school. In this approach, the learner learns through a range of activities such as discussion, idea defense, hypothesis building, questioning and sharing ideas as well as reading and listening (Karadağ, Deniz, Korkmaz & Deniz, 2008). This means that the teacher takes on new duties in teaching and planning learning. Therefore, the importance and sensitivity given to the design and development of a curriculum does not guarantee the success of the curriculum in practice. Teachers need to have some skills and competences to meet the expectations from the philosophy and content of a pre-determined curriculum.

In this study, candidate teachers' opinions about curriculum design were evaluated by a country comparison. Designing a curriculum does not mean that the curriculum is fully adopted by

teachers. The culture and universal perspectives of teachers are believed to be effective on this level of adoption. Teachers' not adopting an improved curriculum or having negative reaction to the curriculum will significantly affect the success of the curriculum. This research is considered important in terms of the fact that it focuses on this problem and it provides an opportunity to compare cultures. This research is the first study in the literature comparing the Turkish and Ghanaian teacher candidates in terms of curriculum design.

Method

In this study, which was conducted according to the scanning method The curriculum design orientations developed by Baş (2013) were used. The scale consists of three sub-dimensions (Topic, Learner and Problem-centered design) and thirty questions and it is rated from Totally Disagree: 1 to Totally Agree: 5 There are ten questions in each sub-dimension. This three-dimensional structure explains 52 percent of the total variance, and it is stated that the Cronbach Alpha coefficient for the overall scale is .94.

The data were collected through easy sampling method by which the scale is applied at teacher training institutions in Turkey and Ghana. In this context, Fırat University in Turkey and University of Education - Winneba, Kumasi - Ghana University were included in the study. A total of 667 pre-service teachers, including 280 from Fırat University, and 387 from Ghana Kumasi- Winneba University of Education, constitute the sample of the study.

The general aim of the study is to compare the opinions of Turkish and Ghanaian teacher candidates about curriculum design orientations. In line with this general objective, views on the three sub-dimensions of the data collection tool were compared in terms of country, gender, and department. In cases where dependent variables were significantly different according to independent variables, not only the difference observed was given but also the effect sizes were calculated. As Özsoy & Özsoy (2013) stated, the statistical significance tests are vulnerable to the effect of chance factor. In other words, while the statistical significance is affected by the sample, the effect size can give more accurate results.

In the study, the effect sizes were also calculated for the cases with significant difference. To interpret the effect size, intervals of Green and Salkind (1997; trns. Büyüköztürk, Çokluk and Köklü, 2012) (.01: Small, .06: Medium, .14: large effect size) were used.

FINDINGS

Within the scope of the research, Turkish and Ghanaian teacher candidates' curriculum design tendencies were compared. Opinion means for subject, learner and problem centered designs are as in Table 1.

Table 1. Turkish and Ghanaian Teacher Candidates' Opinion Means For Curriculum Design

Dimension	Country	N	Mean	Std. Deviation	((SD/Mean)*100)	Distribution
Subject	Turkey	280	3,88	,76	19,59	Homogeneous
	Ghana	387	3,78	,61	16,14	Homogeneous
Student	Turkey	280	3,57	,70	19,61	Homogeneous
	Ghana	387	4,20	,42	10,00	Homogeneous
Problem	Turkey	280	3,49	,62	17,77	Homogeneous
	Ghana	387	4,26	,37	8,69	Homogeneous

As it can be observed in Table 1, while Turkish teacher candidates' means for subject-centered design are higher, Ghanaian teacher candidates' means are higher for learner and problem-centered design. It was determined that the opinions were distributed homogeneously in all dimensions, and the

views of Ghanaian teacher candidates on the problem centered design provides the most homogeneous distribution.

Independent groups t test was used to determine whether the opinions about these curriculum designs differed significantly according to the country. In cases where the distribution is not homogeneous, non-homogeneous t test was used and the results are given in Table 2.

Table 2. Comparison of Opinions about Curriculum Designs based on the Country

		F	Sig.	t	df	Sig. (2-tailed)	M. Differ.	Eta-Squared
Subject	Equal variances assumed	1,793	,181	1,923	665	,055	-	-
Student	Equal variances not assumed	32,110	,000*	-13,332	426,755	,000*	Ghanaian>Turkey	.237
Problem	Equal variances not assumed	41,762	,000*	-18,146	424,309	,000*	Ghanaian>Turkey	.365

*p<.05

According to the Levene test in Table 2, views of the learner on the problem-centered design are not distributed homogeneously. (p<.05). Therefore, t-test results that the variances were not homogeneous were taken into consideration. According to the findings in the table, the opinions of teacher candidates towards subject centered design do not differ significantly based on the countries. (p=.055>.05). On the other hand, a significant difference was found in comparing the views about the learner and the problem centered design and it was determined that the view means of Ghanaian teacher candidates were higher than the Turkish teacher candidates. According to the calculated effect sizes, the country variable has a strong effect on learning and problem centered designs.

In the study, it was also investigated whether the views of teacher candidates on curriculum design approaches differed significantly in terms of gender variable. Prior to this comparison, means for each curriculum design were calculated and listed in Table 3.

Table 3. The Means of Views on Curriculum Design in Terms of Gender

		Country	N	Mean	Std. Deviation
Female	Subject	Turkey	185	3,9222	,77698
		Ghana	234	3,8167	,61806
	Student	Turkey	185	3,5962	,67408
		Ghana	234	4,1650	,45696
	Problem	Turkey	185	3,4762	,58242
		Ghana	234	4,2150	,35058
Male	Subject	Turkey	95	3,8232	,74269
		Ghana	153	3,7386	,60395
	Student	Turkey	95	3,5379	,76536
		Ghana	153	4,2778	,37613
	Problem	Turkey	95	3,5453	,70421
		Ghana	153	4,3359	,40695

When the opinions of the female and male teacher candidates are examined, the means of the Turkish teacher candidates in the subject-centered design are higher, whereas the Ghanaian teacher candidates' means are higher in the learning and problem-centered designs. The gender means were also determined in terms of country. The fact that there is a significant differentiation of opinions about curriculum designs according to gender can be observed within the results of independent groups test in Table 4.

Table 4. Comparison of views on curriculum design according to gender

			F	Sig.	t	df	Sig.	M. Differ.	Eta-Squared
Female	Subject	Equal variances assumed	,856	,355	1,548	417	,122	-	-
	Student	Equal variances not assumed	8,826	,003*	-9,829	309,703	,000*	Ghanaian>Turkey	.202
	Problem	Equal variances not assumed	29,401	,000*	-15,210	285,984	,000*	Ghanaian>Turkey	.382
Male	Subject	Equal variances assumed	1,113	,292	,981	246	,328	-	-
	Student	Equal variances not assumed	29,357	,000*	-8,786	122,602	,000*	Ghanaian>Turkey	.295
	Problem	Equal variances not assumed	17,190	,000*	-9,960	133,475	,000*	Ghanaian>Turkey	.338

*p<.05

According to the Levene test in the table, while the opinions of female and male teacher candidates about subject-centered design are distributed homogenously (p>.05), the opinion about the learner and the problem-centered curriculum design are non-homogeneous (p<.05). In the comparison of the views towards the learner and the problem centered design, the t test results in which the variances were not homogeneous was used. The views on the subject-centered design where the distribution is homogeneous are not significantly different according to gender. [$t_{Female}(417)=1.548$, $p=.122>.05$; $t_{Male}(246)=.981$, $p=.328>.05$]. Views on learner-centered design ($t_{Female}(309.703)=-9.829$, $p=.000<.05$; $t_{Male}(122.602)=-8.786$, $p=.000<.05$) and views on the problem-centered design [$t_{Female}(285.984)=15.210$, $p=.000<.05$; $t_{Male}(133.475)=-9.960$, $p=.000<.05$] differ significantly in favor of Ghanaian teacher candidates. The effect sizes in all dimensions with significant difference are at "Strong" level.

Within the scope of the research, it was aimed to compare the views of the curriculum design orientations in terms of the department. However, since there are some differences in terms of teaching areas between the two countries, comparisons have been made for each country independently. Homogeneity of variance in each dimension in data collection tool which was applied to Fırat University teachers' candidates was investigated before comparing the means of opinion for design orientation by Levene Test. Results are given in Table 5.

Table 5. Homogeneity of Fırat University teacher candidates' views on curriculum design

	Levene Statistic	df1	df2	Sig.
Subject	7,699	6	273	,000*
Student	5,093	6	273	,000*
Problem	3,951	6	273	,001*

*p<.05

As can be seen in Table 5, the variances in all three sub-dimensions are not homogeneously distributed. (p<.05). Therefore, Kruskall Wallis H test was used for these nonparametric variances instead of Anova analysis. However, the means of each dimension were calculated and given in Table 6 before comparison.

Table 6. Opinions means of the candidate teachers of Fırat University about curriculum design orientations

		N	Mean	Std. Deviation	P. Level
Subject	Social Sciences	43	3,50	1,12	Agree
	Elementary Math	38	4,01	,73	Agree
	Physical Education	28	3,75	,47	Agree
	Sociology	36	3,82	,50	Agree
	History	41	3,93	,80	Agree
	Engineering	44	3,92	,63	Agree

	Science	50	4,16	,64	Agree
	Total	280	3,88	,76	Agree
Student	Social Sciences	43	3,52	1,06	Agree
	Elementary Math	38	3,58	,66	Agree
	Physical Education	28	3,53	,69	Agree
	Sociology	36	3,43	,53	Agree
	History	41	3,61	,76	Agree
	Engineering	44	3,58	,52	Agree
	Science	50	3,70	,55	Agree
	Total	280	3,57	,70	Agree
Problem	Social Sciences	43	3,37	,90	Neutral
	Elementary Math	38	3,43	,54	Agree
	Physical Education	28	3,54	,71	Agree
	Sociology	36	3,47	,39	Agree
	History	41	3,68	,73	Agree
	Engineering	44	3,55	,47	Agree
	Science	50	3,45	,46	Agree
	Total	280	3,49	,62	Agree

Considering the scoring method of the data collection tool, only social studies teacher candidates is neutral about the problem-centered design. All the other dimensions were answered as "agree". According to the evaluation made in terms of general means, an order as ($Mean_{Subject}$>$Mean_{Student}$>$Mean_{Problem}$) can be formed. Therefore, it was realized that the highest participation with highest mean in the subject-centered design, was in the departments of Science and Elementary Mathematics Teaching, respectively. The results of the Kruskal Wallis H (KWH) test, in which the means of views for each dimension are compared, are as in Table 7.

Table 7. Comparison of the Opinions of Teacher Candidates Studying at Fırat University on Curriculum Design Orientations (KWH Analysis)

	Department	N	Mean Rank	Chi-Square	df	Sig.	Diff.	Effect Size
Subject	1.Social Sciences	43	119,59					
	2.Elementary Math	38	155,49					
	3.Physical Education	28	105,84					
	4.Sociology	36	118,04					
	5.History	41	147,18	23.812	6	.001*	2>1, 7>1	.070
	6.Engineering	44	138,36					
	7.Science	50	179,07					
	Total	280						
Test of Homogeneity of Variances (Levene Test, F=7.699, p=.000*)								
Student	1.Social Sciences	43	139,92					
	2.Elementary Math	38	141,92					
	3.Physical Education	28	137,04					
	4.Sociology	36	114,93					
	5.History	41	147,70	5.217	6	.516	-	
	6.Engineering	44	141,99					
	7.Science	50	153,06					
	Total	280						

Test of Homogeneity of Variances (Levene Test, F=5.093, p=.000*)							
Problem	1.Social Sciences	43	133,76	7.350	6	.290	-
	2.Elementary Math	38	130,71				
	3.Physical Education	28	154,38				
	4.Sociology	36	130,92				
	5.History	41	165,54				
	6.Engineering	44	144,84				
	7.Science	50	128,52				
	Total	280					
Test of Homogeneity of Variances (Levene Test, F=3.951, p=.001*)							

*p<.05

According to the KWH analysis in the table, opinions differ only in the subject-centered design. (p=.001<.05). This significant difference is between teacher candidates in Social Studies Education and teacher candidates in Elementary Mathematics Education and Science Education. According to the effect size calculated in this dimension, the department has a strong impact on the views on the subject-centered design. Before the comparison of the views of the Ghanaian teacher candidates on the curriculum design orientations homogeneity of variance was investigated to determine which analysis technique to be used. The findings for this situation are as in Table 8.

Table 8. Homogeneity of teacher candidates studying at Kumasi-Ghana Education University-Winneba on curriculum design orientations

	Levene Statistic	df1	df2	Sig.
Subject	,644	7	379	,719
Student	6,637	7	379	,000*
Problem	2,360	7	379	,023*

*p<.05

It was determined from the dimensions in Table 8 that the opinions about the learner-centered and problem-centered orientations were not homogenously distributed. For this reason, One-Way Anova was used to compare the opinions about the subject centered design, while KWH analysis was used to compare the views about the learner-centered and problem-centered design. Before these analyses, the section means for each dimension were calculated and given in Table 9.

Table 9. Opinion means of teacher candidates studying at Kumasi-Ghana Education University-Winneba on curriculum design orientations

Dimension	Department	N	Mean	Std. Dev.	P. Level
Subject	1.English Language Education	44	3,12	,52	Neutral
	2.Social Studies Education	50	3,43	,53	Agree
	3.Psychology Education	45	3,47	,52	Agree
	4.Early Childhood Education	47	3,62	,52	Agree
	5.Mathematics Education	34	4,08	,45	Agree
	6.Management Education	56	4,11	,45	Agree
	7.Special Education	41	4,13	,44	Agree
	8.Science Education	70	4,14	,46	Agree
	Total	387	3,78	,61	Agree
Student	1.English Language Education	44	4,24	,29	T. Agree
	2.Social Studies Education	50	4,17	,33	Agree
	3.Psychology Education	45	4,31	,32	T. Agree
	4.Early Childhood Education	47	4,44	,34	T. Agree
	5.Mathematics Education	34	4,17	,43	Agree

	6.Management Education	56	4,12	,50	Agree
	7.Special Education	41	4,13	,48	Agree
	8.Science Education	70	4,11	,50	Agree
	Total	387	4,20	,42	Agree
Problem	1.English Language Education	44	4,29	,45	T. Agree
	2.Social Studies Education	50	4,31	,38	T. Agree
	3.Psychology Education	45	4,27	,46	T. Agree
	4.Early Childhood Education	47	4,30	,41	T. Agree
	5.Mathematics Education	34	4,26	,27	T. Agree
	6.Management Education	56	4,17	,33	Agree
	7.Special Education	41	4,15	,30	Agree
	8.Science Education	70	4,30	,33	T. Agree
	Total	387	4,26	,37	T. Agree

Considering the scoring method of the data collection tool, only English Language Education teacher candidates is neutral about the subject-centered design. All the other dimensions were answered as agree or totally agree. It was determined that the opinions at the level of "totally agree" were mostly obtained for the problem-centered design. According to the evaluation made in terms of the overall opinion means, exactly the opposite way of order from Fırat University in Turkey ($Mean_{Problem}$>$Mean_{Student}$>$Mean_{Subject}$) was formed. Therefore, it was realized that the highest participation with the highest mean in the problem-centered design was in the Early Childhood, Science and English Language Teaching departments respectively. The results of the Anova and Kruskal Wallis H (KWH) tests, which compared the mean of views for each dimension, are as in Table 10.

Table 10. Comparison of the Opinions of Teacher Candidates Studying at Gana University of Education - Winneba, Kumasi-Ghana University on Curriculum Design Orientations (ANOVA and KWH Analysis)

		Sum of Squares	df	Mean Square	F (Chi-Square- X^2)	Sig. (Asymp. Sig)	Differ.	Effect Size
Subject	B. Groups	54,131	7	7,733	F=32,249	,000*	1<3,4,5,6,7,8 2<5,6,7,8 3<5,6,7,8 4<5,6,7	.373
	W. Groups	90,881	379	,240				
	Total	145,012	386					
Student	B. Groups	4,578	7	,654	X^2=24.538	.001*	3<6,7,8 2<3	.064
	W. Groups	66,757	379	,176				
	Total	71,335	386					
Problem	B. Groups	1,254	7	,179	X^2=15.160	.034*	6<8 2,7<8	.023
	W. Groups	53,910	379	,142				
	Total	55,164	386					

1.English Language Education, 2.Social Studies Education, 3.Psychology Education, 4.Early Childhood Education, 5.Mathematics Education, 6.Management Education, 7.Special Education, 8.Science Education

As can be seen from the results of the analysis in the table, a significant difference among opinions was determined in all three sub-dimensions. From the results of ANOVA analysis, it can be concluded that the opinions about subject-oriented design differed significantly, and this difference was found among English Language Teaching, Social Studies, Psychology, Early Childhood Education departments and many other departments. According to the KWH analysis, the views which significantly differentiated for learner-centered design are among Psychology Education and

Management, Special and Science Education, and Social Studies Education and Psychology Education. The significant difference determined in the problem-centered design is between Management Education and Science Education, Science Education and Social Studies Education and Special Education. The department has a weak impact on views on subject-centered and learner-centered designs and has a strong impact on views on problem-centered design. The last but not least, it was investigated whether a classification could be made in terms of the data obtained in the research. For this purpose, Country and curriculum designs were analyzed by Discriminat analysis. The Eigenvalues and Wilks' Lambda values obtained as a result of discriminant analysis are as in Table 11.

Table 11. Discriminate analysis Eigenvalue and Wilks'Lambda values

Function	Eigenvalues	% of Variance	Cumulative %	Canonical Cor.
1	.847	100.0	100.0	.677
	Wilks' Lambda	Chi-Square	Df	Sig.
	.541	381.332	3	.000

As seen in the table, the only function with an Eigenvalue value of .847 is generated. The Canonical Correlation coefficient of this function is .677. Since Wilks' lambda value is calculated as .541 and Chi-Square value is meaningful (Sig.=.000) It has been concluded that a classification is possible in terms of the country. Structure matrix coefficients and classification function coefficients for this function are given in Table 12.

Table 12. Structure matrix and classification function coefficients

Structure Matrix		Classification Function Coefficient (Country)	
Function(1)		Turkey	Ghana
Problem	.799	8.326	11.301
Student	.591	5.109	6.578
Subject	-.126	4.085	2.303
Constant		-32.339	-42.784

When the structure matrix coefficients in the table are examined, it is determined that the problem centered curriculum design has the highest relationship with discriminant function with .799 coefficients. When it comes to discriminant function,

for Turkey T= -32.339+8.326*Problem+5.109*Students+4.085*Subject

for Ghana G= -42.784+11.301*Problem+6.578*Student+2.303*Subject. The results obtained from the analysis are as shown in Table 13.

Table 13. Classification Results

			Predicted Group Membership		
		Country	Turkey	Ghana	Total
Original	Count	Turkey	231	49	280
		Ghana	44	301	345
	%	Turkey	82,5	17,5	100,0
		Ghana	12,8	87,2	100,0
Cross-validated	Count	Turkey	231	49	280
		Ghana	44	301	345
	%	Turkey	82,5	17,5	100,0
		Ghana	12,8	87,2	100,0

According to the classification results, 231 Turkish teacher candidates (82.5%) out of 280 and 301 Ghanaian teacher candidates (87.2%) out of 345 could be classified correctly. Graphical representation of the classification is given in Graph 1. According to this, Ghanaian teacher candidates' percentage of being classified is higher than Turkish teacher candidates in terms of curriculum design. In general, the correct classification rate is 85.1%.

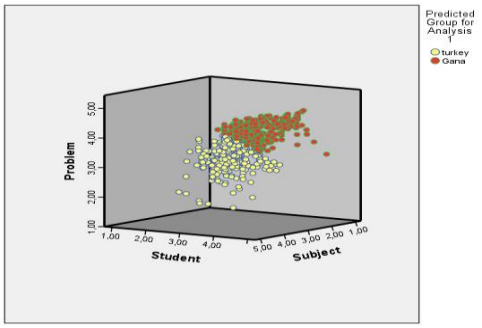

Figure 1. Classification Results

RESULTS AND DISCUSSION

As a result of the study, it has been determined that Ghanaian teacher candidates adopt more problem and learner-centered curriculum designs than Turkish teacher candidates do. This situation does not change in terms of gender. The view means of Ghanaian male and female teacher candidates about problem and learner-centered curriculum designs are higher than Turkish teacher candidates. Both Turkish and Ghanaian teacher candidates have expressed their opinion as '' Agree'' for the subject-based curriculum design. On the other hand, while Turkish teacher candidates' opinions on problem and learner-centered design were at the level of ''Agree'' regardless of department, the views of Ghanaian teacher candidates on the problem-centered and then learner-centered design were as ''Completely Agree''. All of these findings show that teacher candidates in both countries differ in terms of their views on curriculum design in some degree. In related literature, there is no study to be compared to these findings. However, in his study, Yıldız (2018) found that Turkish teacher candidates' perceptions about curriculum designs were at "Medium" level for the learner-centered and problem-centered designs and "High" level for the subject-centered design. Both researches are similar in terms of teacher candidates' opinion on curriculum design. Contrary to this research, Ünsal & Korkmaz (2017) found that teachers preferred students and problem-centered designs. Kozikoğlu & Uygun (2018), in their study which investigated the relationship between the philosophy of education and curriculum design concluded that the Turkish teacher candidates who make up their samples in their researches adopted the learning-centered least and subject-centered design most. According to this research, there is a moderate relationship between the education philosophy adopted and the educational curriculum design approach.

There are many changes in terms of education and training in the world. Similar developments are also observed in Turkey and Ghana. Turkey has experienced a change in terms of teaching philosophy since 2005. Although many revisions have been made over time, this philosophy has been adhered to. The Turkish Educational System, structured based on the progressive philosophy, is shaped according to the constructivism approach. As Yıldız (2011) explained, with the change in teaching approach, student-centered understanding rather than subject-centered understanding came to the forefront. This situation is frequently emphasized in the curriculum. However, the results of this study show that the curriculum and teacher preferences do not match. In a constructivist approach, students are trained as responsible for their own learning in collaboration. Teachers, rather than providing information to students, have assumed a role in guiding their learning. There are many research findings (Güven, 2011; Bal, 2008; Karacaoğlu & Acar, 2010; Epçaçan & Erzen, 2008; Yalar, 2010); Karaman & Karaman, 2016) that state Turkish teachers do not find new curriculum functional.

Since teachers do not find the curriculum functional, rather than following it, they may have preferred to teach in their own way.

The reason for the finding difference between Ghana and Turkey can be the practice style of the curriculum. Recently, Turkey has sat on the basic standards for curriculum. It is not possible to change the curriculum by teachers in terms of content and objective. Curricula are applied throughout the country without changing. The central authority controls many aspects of curriculum implementation. However, in Ghana, as Kwao (2017) stated, a curriculum approach that is non-static and allows for relative change is being implemented. Also, while teachers are active member of the curriculum development in Turkey, according to Abudi & Mensah (2016), the participation of teachers in Ghana to curriculum development studies are limited. In the same study, it was emphasized that Ghanaian teachers wanted to contribute more to the process through the localization of curriculum development studies. Nijhuis, Pieters & Voogt (2013) criticized the lack of a culturally sensitive structure in Ghana's curriculum. According to them, the culture of the country is not sufficiently reflected in the curricula. According to Adu-Gyamfi, Donkoh & Addo (2017), states such as Britain, Japan and USA have a great influence on the Ghana education system. In that, Kumi & Seidu (2017) found some similarities in terms of educational policies in their studies comparing USA, United Kingdom, Ghana and Burkina Faso. Ghana, where approximately sixty different languages are spoken, prefers English as the communication language whereas in Turkey, the foreign language teaching is regarded as unsuccessful, even university graduates are unable to speak English fluently. All these findings reveal an interesting situation. While Turkish teachers are an active member of curriculum development studies, teacher candidates adopt subject-centered curriculum design more. On the other hand, while Ghanaian teachers can participate in curriculum development studies limitedly, teacher candidates adopt learning and problem-centered orientations more. Can that teachers and teachers' candidates have the opportunity to teach in a freer environment encourage them to choose a problem and student-centered design?

Differences in curriculum may be another reason for the differences identified in both countries. Turkey currently has established 4 (primary) +4 (Secondary) +4 (High School) +4 (University) education system. However, in Ghana, there is a structure of 6 (primary school) +3 (Junior Secondary School) +3 (Senior Secondary School) +4 (University Course) education (Adu-Gyamfi, Donkoh & Addo, 2017). There is a more intensive course in Turkey compared to Ghana. Turkish teachers may have compulsorily adopted subject-centered design to complete the courses on time. It is known that Turkish teachers define the curriculum as a time-consuming curriculum, especially with their assessment and evaluation activities. (Acat & Uzunkol, 2010; Anıl & Acar, 2008; Tuncer, 2010).

Perhaps the most important finding of the research is that the views on the design of the curriculum have a high percentage in terms of country classification. It is thought that cultural and social plays an important role in this differentiation in terms of the country as well as educational activities. Teachers are role model for their students. Those who prefer the teaching profession are highly likely to be inspired by their past teachers. Even if there is a change in the curriculum approach over time, changing the preferences of the teaching habits is time consuming and sometimes not possible. In addition, the expectations of students and the society regarding an ideal teacher can be different from society to society. For example, the Turkish education system is structured based on central examinations in some curricula or transitions to the profession. Therefore, a great number of candidates have to be placed through multiple-choice tests. In addition to adopting the style of studying according to the type of exam, the family and society's expectation from the teachers is to be successful in these exams as well. Therefore, there is no expectation of targeting or measuring high-level learning. This situation causes the content of the curricula to be blessed, and also causes how and at what level the information is transformed into the product is taken to the backseat.

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