

CASE BASED CURRICULUM IN ADMINISTRATION AND LEADERSHIP COURSE

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Abstract

Law enforcement training institutions carry out important responsibility by training police officers to serve community. As usual in all training institution, the success of this institution is based on designing of efficient and effective curriculum for the students. For this purpose, a case-based curriculum was developed for the Administration and Leadership course at the Faculty of Security Sciences (FSS) at Turkish National Police Academy (TNPA) and this research evaluates its effectiveness. As data collection tools, a summative test was developed in order to specify differences between students' average achievement scores of pre-test and post-test. In addition, a semi-structured interview instrument regarding to the Administration and Leadership course curriculum was developed to specify the opinions of students and trainer. A statistical significant difference was captured between students' pre and post-tests scores. In addition the students and trainers involved in the Administration and Leadership course curriculum provided positive feedbacks about the program.

Keywords: Case based curriculum, curriculum evaluation, administration and leadership, law enforcement training

Introduction

The development of countries is based on the training capacity of human resources. Therefore, training activities and systems should be deliberately designed and implemented in order to contribute to the development process of the nations. From the point of this view, the training institutions' primarily responsibility is to train individuals in a way that they

would meet the needs of the society in the long run. This could be attained by designing and implementing efficient curriculum.

It is important to focus on the study of curriculum development at bachelor level since it is one of the primary entities which provide human resources to the society. Especially, higher education programs should be revised in order to create human resources who are creative, who can think critically, who are accountable and have responsibility. Reviewing all, the curriculum development studies lacks at Turkish National Police Academy which is one of the major institution educating ranked cadets for the policing work in the nation (GEAR, 2011).

Recent studies indicate that training program of the academy mostly focuses on theory rather than practice. That's why; current program is criticized in terms of its in proficiency to create desired officers for the organization. Today, training strategies such as student centered learning, learning with teacher, active learning are commonly used through training activities in order to enhance student's thinking abilities. Case-based learning (CBL) method is one of the commonly used teaching strategies which lead students to focus on problem situations with individual or group studies. CBL is one of the learning methods which develops students' problem solving and decision making capacity and transforms analytic abilities into practice which is very close to the real life situations. (Smith,1987).

According to McWilliam (1992), teaching with cases has some potential advantages such as creating real life situations, practical problem solving ability, and gaining field knowledge and this leads to increase interpersonal relations students. The case based instruction uses real life situations in order to teach students problem solving and decision making process with the active participation of students (Elksnin, 1998). The CBL bridges the theoretical and practical parts of learning (Shulman, 1992), provides opportunity to solve problems with the groups, and develops problems solving abilities (Fossey & Glover, 2006).

The results of CBL studies in different fields and levels indicate that CBL significantly increases students' academic achievement, (Ciraj, Vinod and Ramnarayan, 2010; Brown, Pond, and Creekmore, 2011; Adiga & Adiga, 2011), critical thinking, (Noblitt, Vance and Smith, 2010) and problem solving skills (Roche, Aitken and Zito, 1999; Choi & Lee, 2009). In addition, CBL studies reveals that CBL enhances the effectiveness of groups studies and discussions instead of individual study (Levin, 1995; Flynn ve Klein, 2001; Weil, McGuigan ve Kern, 2011) and students' perceptions on CBL is extremely positive (Ertmer, Newby ve MacDougal, 1996; Flynn and Klein, 2001). Also, various research on CBL concludes that CBL is very effective through practical fields of studies in terms of preparing students for the profession, increasing the level of academic achievement,

and enhancing students' higher order thinking skills (Alvarez,1990; Biggs & Tang, 2007; Bowie, Voss ve Aretz, 2009; Fossey, 2006; Ganiron, 2014; Herreid, 1994; McNaught, Lau, Lam, Hui ve Au, 2005; Milner ve Wolfer, 2014; Titterington, 2007).

Considering the features of CBL, developing a curriculum based on CBL method will built necessary problem solving, analytical thinking, advanced thinking, and communication skills on students who will take leadership positions to perform their duties in the future. From this point of view, this study is important in terms of measuring CBL effect on law enforcement training.

Purpose of the Study

The TNPA carry out one of this important responsibility by training ranked police officers to serve community. As usual in all training institution, the success of this institution is based on designing of effective curriculum for the students. For this purpose, a case-based curriculum was developed for the Administration and Leadership course at the FSS and this research evaluates its effectiveness. The aim of this study is to examine effectiveness of the curriculum based on students' achievements. Basically, the research attempts to answer following questions;

1. *Is there any significant difference between students' pre and post test scores?*
2. *What is the level of achievement to meet objectives of the case based curriculum?*
3. *What are the opinions of the trainer and the students regarding to the implementation of the new case based curriculum in Administration and Leadership course?*

The research basically examines how the CBL affects professional learning of the students. The students of FSS are prepared for a challenging duty after the graduation and administration and leadership course is one of the most important courses which aim administrative skills to solve problems. The students will be an administrator upon their graduation and their position require substantive leadership and administration skills. Especially, being an administrator in a law enforcement organization makes it challenging to overcome personnel and societal problems. They are not only deal with crime issues in the society but also face with the personnel problems since they are manager. Being very young and unexperienced in the field increase the magnitude of the challenging for the young graduates. Therefore, the more they prepare for their work in terms of leadership and administration skills the better they will serve the organization.

There are various problematic situations that students will face in the future. For instance, they will be so young when they graduate and they are

supposed to give order police officers who are older than them. Also, long and unstable working hours and the nature of policing lead stress and anxiety among police officers. As an administrator, they are supposed to practice leadership effectively in order to become successful. The course is basically designed based on the real life cases that would prepare them for their future profession. The cases are designed carefully in order to touch the real problems that they would face in future.

Contrary to the classical design, the researcher aimed to propose a dynamic CBL design to effectively teach the concepts of the leadership and management and built necessary skills to perform appropriately when facing with any problem. By using a quasi-experimental design, the research aims to examine how the CBL program was effective.

Significance of the Study

Management and Leadership course is taught as a selective course at Turkish National Police Academy where students are educated to be a ranked officer in the organization upon graduation. Within the content of the course, the problems and situations that students will face while performing in their duties in future are covered and some strategies to overcome these problems and situations are taught. From this point of view, it is essential to evaluate the curriculum design of Management and Leadership course as well as providing its strengths and weaknesses. In this way, it is possible to check whether the objectives of course are met or not.

In addition, the application of CBL through administration and management course will be a model for other courses. Especially, the compliance of the CBL with law enforcement courses will be tested by this research and this will enable decision makers to propose new reforms on course designs. In this way, students will be able to recognize their deficiencies and they will be eager to learn.

Method

This research uses both qualitative and quantitative methods. A quasi-experimental design was adopted to examine the effectiveness of CBL. The researcher developed a CBL program for the administrative and leadership course in collaboration with the field experts. The program was implemented in FFS students in their last semester prior to graduation. The sample of the study consists of 38 3rd class students who registered of Administration and Leadership course in 2012- 2013 education term at FFS.

A summative test was developed in order to specify differences between students' average achievement scores of pre-test and post-test. ITEMANW statistical program was used to test the strengths and the differentiations of items. With the application of the analysis, 16 items were

extracted from the test since their differentiation level is lower. The rest of the 34 items were used for analysis. Examining the descriptive analysis of the test statistics, the average rate of the final test was 22.196, Variance was 61,801, Standard Deviation was 7.861 and Test Reliability was (KR 20) 0.913. In addition, a semi-structured interview instrument regarding to the Administration and Leadership course curriculum was developed to specify the opinions of students and trainer. To analyze the differences between pre and post test scores, t test for dependent samples was conducted. The data derived from student and trainer interviews were analyzed descriptively.

Findings

Variation between pre and post-test scores

The research attempted to capture if there is any significant difference between students' pre and post-test scores by adopting t-test. After the application of the newly developed curriculum on students, a pre and post-test of success test were applied to sample group. The findings of the analysis were compared with the statistics of paired samples t-test which was shown by in Table 1.

Table 1. Result of Paired Samples t-test scores

	N	Min	Max	Mean	ss	Sd	t	p
Pre-test	38	12	32	21,18	3.79	37	-4.514	.000
Post-test	38	11	33	28,18	4.14			

*p < .05

The findings presented in the Table 1 show that the average of post-test scores of the students has meaningfully increased from 21,18 to 28,18 in a total point of 34 with the intervention of the group with new curriculum. In addition, according paired t-test findings significant difference was recorded comparing pre and post test scores ($p=.00<.05$). This means that intervention to experimental group resulted meaningful change. In other words, the CBL program affected students learning positively since their scores increased 7 points.

Level of achievement to meet objectives

The research also examined the level of achievement to meet the objectives of the case based curriculum. It is important to analyze all objectives of the program with the relations to the items (the percentage of the right answered questions) in order to understand how successful the case based program was. The percentage of right answered items is presented in Table 2. Bloom (1976) indicate that the success rate for the topics which are not related ordinal sequence ranges 50-65 % (Özçelik,1981) and the success criteria for Management and Leadership course was justified and evaluated

based on this assumption since it does not rely on ordinal sequence.

Table 2. Items' Right Answer Percentage Based on Students' Posttest Scores

Item No	Objectives	Post Test	Average of Posttest Percentage (%)
1	1.unit 1.objective	68	85,4
2		97	
3		94	
4		76	
5		92	
8	1.unit 2. objective	68	68
6	1.unit 3. objective	86	94,6
7		94	
9		94	
10		97	
11		100	
12		97	
13	1. unit 6. objective	97	97
14		97	
15	1. unit 7. objective	51	51
21	2. unit 1. objective	55	55
22	2. unit 3. objective	86	76,6
26		50	
27		94	
23	2. unit 4. objective	63	72
24		52	
25		81	
30		92	
28	2. unit 6. objective	68	80
29		92	
31	3. unit 1. objective	89	82
33		84	
34		73	
18	3. unit 3. objective	94	87,5
19		81	
16	3. unit 5. objective	78	89
17		97	
20		97	
32		84	

It can be seen on Table 2 that the level of meeting all objectives of the Administration and Leadership course curriculum is above the 50-65 % which is the criteria reference to courses that has the units with less ordinal sequence. This means students in Administration and Leadership course have

gained the necessary knowledge and skills which were specified in curriculum on appropriate level.

Students' Opinions about Implementation of CBC

The study also used qualitative approach in order to capture the opinions of the trainer and the students regarding to the implementation of the new Case Based Curriculum (CBC) in Administration and Leadership course. At the end of the semester a focus group interview conducted with 8 students who involved in the Administration and Leadership course. Students generally provided positive feedbacks about the curriculum.

Students especially liked the active involvement during the course. They stated that the most important feature of CBC was the student involvement. Students working on cases and discussing it together in the class has made the course student centered and students really appreciated that.

Designing course with cases rather than just lecturing has improved students' interest on the course. Especially after presenting the case, students were more excited to learn more on the subject. It made students more eager to search and find the right answers to case questions. They also mentioned that they developed positive attitude toward their future with this course.

Students also compared this course's methodology to other courses and mentioned the differences. They said they mind more learning in this course. Because the cases were chosen from real life situations and they knew they will be encounter this kind of situations in their professional life. So they were more eager to learn in this course. They also mentioned that this course was very beneficial for them so other students also need this course. Therefore, they suggested this course to be required for all students.

Some examples of students' opinions,

"... Using cases for this course is especially important. Because we had similar courses to this but we just learned all the theories. With this course we have the opportunity to use this knowledge in the real life situations."

"...It was very effective to discuss the real life cases. We were able to learn the implication of our prior theoretical knowledge. It made the knowledge permanent."

"...This course methodology prompted us to search and find the information that we need. This was very productive for us."

"...Before this course I didn't feel like I am going to be a police chief. But now I feel it and I care about being a good one."

"...This course must be required rather than elective, because all our friends need this course."

Feedback for the implementation of CBC was generally positive

although many students recognized a need for using ICT. They mentioned that using more video or different visual aspects would improve efficiency of the curriculum. Also they had a hard time to find the all resources on the library.

Some students also suggested having lecture before presenting the cases. This way they would learn the subject first and then the cases would reinforce the subject they have learned.

Trainer's Opinions about Implementation of CBC

Results of interview with the trainer of the Administration and Leadership course revealed that new CBC for Administration and Leadership course was successful and effective for student learning comparing with previous implementation methodology of course. Trainer said he had been teaching for this course for a few years but this was the first time that he used a specially designed curriculum. So there were obviously different outcomes than previous years.

Trainer stated that it was the first time that the course objectives were identified. Trainer also said every week he knew what the objectives were and he was more ready for the class. He also said it was very helpful to have a guide prior to class to be more ready and motivated.

"...with this CBC implementation I realized how teaching can be more pleasure job. Being organized prior to class make me feel braver and be ready to engage and discuss the cases with my students. It is very effective way of teaching."

Trainer also mentioned that CBC significantly improved students' interest and involvement during course. As a result of this trainer spend less effort and there was more productive learning environment. *"...I see my students were more excited during the course comparing to my previous classes. They were more willing to engage with each other and me. This made me also excited and willing to teach."*

Finally trainer emphasized that CBC was very effective and productive to help the students gain and internalize practical skills and knowledge for their profession. Also designing a student centered course curriculum with this systematic will be a good example for other courses of the FSS in which mostly traditional teaching methods had been used for a long time. To sum up, the interview findings derived from both students and trainer supports the findings of quantitative findings.

Discussion and Conclusion

Research findings revealed that implementation of the case based curriculum in Administration and Leadership course was successful. Even

though students' pre-test scores were high, there was a significant difference between students' pre and post-tests. This shows the effectiveness of CBL curriculum on students' success. These findings draw important conclusions for the professional training design. The CBL was viewed as a remedy to break down the routine in the training process at FFS. Similar to FSS, it seems that it would be remedy for all kinds of professional training design in order to keep students desirable for learning since CBL creates an enjoyable learning environment.

It can also be inferred that students' pretest was high because of taking similar courses at earlier grades. In this context all the similar courses that have been taught during the four years of education could be combine to reduce the time spend unnecessary. This way it can be gained more effective results in shorter time which is the feature of the economy of education. One of the evaluations criteria of the curriculum is its economic aspect (Ertürk, 1998). Therefore case based methodology can be used designing curricula which combine the similar learning objectives have been taught in different courses at different times.

Another result from the research is the positive opinion of students and trainer on CBL. They found learning by cases is very effective on improving practical skills opposite to traditional learning environment in which they just exposed to theoretical knowledge. It is inferred that before they start their profession it is important to improve their practical skills which will help them manage situations they face in the future. This will lead them to gain self-confidence for their future practices.

Students also mentioned that CBC improved their positive attitude toward the profession. This outcome also is very important to prepare students for their profession. It can be seen as effectiveness of CBC on affective domain. Most students have negative preconception against their profession because of the heavy work load of the profession. Also, prior graduates created some myths for the students which indicate that the field of profession was totally different than it is in the school. The CBL was successful to overcome this myth by creating real life situations in the class. This helped them to see their deficiencies for their profession and encouraged them to work harder for their future.

Based on the students' and trainer's opinions the most important feature of the CBC is the student involvement. Student involvement was a significant problem in the courses taught classical ways. Students were not eager to participate in the class since they were not interested in the methodology and the materials of the courses. However, CBL was able to overcome these barriers with its dynamic methodology. Bloom (1976) says the student involvement is the best descriptor for the quality of instruction. Therefore it can be inferred that CBC is an effective curriculum by

improving student involvement in the learning process.

In all education levels primary objective is students' learning outcomes and desired learning outcomes will be the result of an effective curriculum which is the basic tool for teachers (Senemoğlu, 2013). Therefore designing effective curricula is the only way of going right direction. The findings of the research revealed that CBL was an effective tool to reach learning objectives in many professional areas.

With regards to the results of the research, professional training institutions should focus on CBL method in order to create an effective learning environment for their students. CBL oriented curriculum will enhance students learning and this will enable them to prepare for their profession effectively. Therefore, the decision makers should examine the use and application of the CBL program through appropriate fields of learning. This will provide practical field of exercise which would develop students' skills to perform their duties professionally.

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