

SELF SUFFICIENCY BELIEF OF CLASSROOM TEACHERS ON THE USE OF CLASSROOM MATERIAL

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Abstract. *The main aim of this study is to point out the self sufficiency BELIEF of classroom teachers on the use of classroom material. The work group of this qualitative based research consists of 8 teachers assigned in the state of Afyon. The means of data collection in the research is a semi structured interview form and the data collected has been analyzed using the 4 processes of the factual science pattern. The results of the analysis have revealed that the self sufficiency belief of classroom teachers on the use of classroom material is low.*

Keywords: *Material, self sufficiency*

INRODUCTION

One of the most emphasized issues in the field of education has been the self sufficiency belief of both students and teachers. Some very important knowledge acquired especially in the last 20 years has shown that self sufficiency belief has a very important role in human life. The scope of this research consists of the self sufficiency belief of teachers. This self sufficiency belief of teachers hold a major share in the studies about self sufficiency and this belief is used to explain the differences between the teaching methodologies and behaviors of the teachers.

One other field that a teacher has to be competent besides his teaching formation is their ability to efficiently use technology or material during the teaching process. The use of material during teaching makes perception and learning easier; stimulates attention and makes the classroom environment livelier. The materials make events, notions and things which cannot be visited or brought into class possible to be presented with their real reflections in class (Doğdu & Aslan, 1993). This makes materials function in a way that supports learning.

However, when the previous researches are analyzed the supportive function can be seen but there are no clear and solid results. The researchers point out that the main reason for this is the way the materials are used in class and especially the knowledge, experience and belief of the teachers are important factors. Stein & Bovalino (2001), has observed that the successful teachers focus on how the use of materials can affect the students mathematical

thinking when planning his lessons. However most teachers trouble themselves using materials in class without thinking enough on how materials can support the teaching process (Grant vd., 1996; Akt: Özdemir, 2008: 363).

Classroom teachers must have the self sufficiency belief in many subjects like Maths, Social Studies and Science in orders to be able to teach using their academic knowledge. The self sufficiency belief of the teacher affects and even alters many factors such as the quality of teaching, methodology and material use, the success of the student (Klausmeier & Alen, 1978). The focus of this research is the self sufficiency of teachers on the use of materials in class.

Self Sufficiency Beliefs

Self Sufficiency is a Notion developed on the theory of sufficiency and was used by Bandura for the first time in the Social Learning Theory. The Theory of Sufficiency is about the individual being effective on his own behavior, thoughts and motivation. The core of this theory is that the individual's awareness on how he motivates himself, how he thinks, how he behaves and how he feels (Schriver & Czerniak, 1999; Ritter, Boone & Rubba, 2001). According to Bandura self sufficiency is the belief of the individual that he has the necessary skills in order to complete a task (Bandura, 1995: 3; Akt: Zimmerman, 1995; Kear, 2000; Gawith, 1995).

The researches on the teachers self sufficiency are generally based on researching their self sufficiency beliefs. The general self sufficiency beliefs of a teacher may not reflect their belief in teaching a certain subject. This makes the designation of the teacher's private sufficiency important. The self sufficiency inspection of a teacher on material use has great importance because it helps the teaching process to be carried out more effective and efficiently and thus it increases the success of the student. The designation of this sufficiency on material use is also important because it reveals the teachers judgment on his own capacity of material use. Compeau ve Higgins (1995) defines self sufficiency on computer use as "the individuals own judgment on his capacity of computer use".

Self Sufficiency Belief also shows how much the teacher believes in him about the skills necessary for teaching. The Level of Self Sufficiency is an important factor that defines how an individual acts before events, incidents and difficult situations (Yaman, Cansüngü & Altunçekiç, 2004). The self sufficiency of teachers also effect the in class performance and applications of the teacher. Thus a teacher with a high level of self sufficiency is obviously more willing and passionate about teaching. Makes more effort for teaching. Besides does not

consider the use of materials as a waste of time and pays attention to use various materials in class (Tuckman & Sexton, 1990; Tschannen-Moran ve Hoy, 2001).

On the other hand teachers with a low level of self sufficiency believe that things are more difficult than they seem. Because of their narrow vision their problems and work can not be finalized with success. And also they believe that the use of materials is a waste of time thus they choose to read the information from the book or explain it verbally (Kaptan & Korkmaz, 2002).

Obviously the teachers with low and high levels of sufficiency belief have different attitudes for in class behavior and teaching methods (Gibson ve Dembo, 1984; Tschannen-Moran et al., 1998). It is revealed that there is an important difference in the in class behavior of teachers with low and high levels of self sufficiency (e.g. feedbacks given to students with learning difficulties) and this affects the students' success (Özkan vd., 2002).

The Self Sufficiency belief affects four important basic psychological processes in human life such as the cognitive process, motivational process, emotional process and choice making processes (Akbaş & Çelikkaleli, 2006). Thus a teacher with a high level of self sufficiency belief allows him to set bigger targets and demonstrate more consistent behavior, helps him increase motivation in class and contributes to a better choice of material selection.

Use of Material

Materials are used because they supply a multiple learning environment, help individual student needs to be satisfied, they attract attention, make remembering easier, make abstract things more solid, save time and enable reliable observation opportunities. Materials are also important because they enable the use of relevant content at different times, they can be used again and again, simplify the content and make it easier to understand (Yalın, 2002: 93). What makes material use very important in teaching is the direct relationship between the 5 senses and learning. The more senses stimulated during teaching makes the process of learning more effective, sensible, permanent and fast (Özden, 2003).

A teacher is a person to know what to achieve and where to get it from and also a person able to show it to his student. He is in charge of the selection and use of the material chosen. As a result of Çepni (1993) research named “The attitudes of teachers towards laboratories in secondary schools” almost 50% of teachers failed to show a reason for using laboratories in science lessons. The results of Koruyan’s (1993) research in 1993 show us that the teachers were classified as “mid level sufficient” in teaching science.

Moyer (2001; Akt: Özdemir, 2008: 363), observed 10 primary school level 2 teachers about how and why they use materials in class and the results show that most teachers use materials for games and fun purposes during the extra time left from the actual teaching time. These teachers consider math lessons with materials as “ fun math” and the lessons with symbolic demonstrations as “real math”. Similarly Çakıroğlu ve Yıldız (2007) have observed the use of materials by trainee teachers in their methodology and school experience lessons who are to be teachers in primary school level 2 and have seen that most trainee teachers do not focus on how the material use can support cognitive understanding (Özdemir, 2008: 363). In their research Clements (1999) and Uttal & colleagues (1997) discovered that students perceive materials as a reflection of other things and thus they experience difficulties in finding the connection between materials and mathematical notions.

THE METHOD OF THE RESEARCH

This research has been planned as a qualitative research. A factual science pattern has been used in the collection and interpretation process. Factual science, is a qualitative research pattern that focuses on matters that we come across during daily life which we don't have a detailed understanding of and it also focuses on the understandings, experiences, perceptions, intentions and perceptions of individuals who have personally experienced these matters (Yıldırım & Şimşek, 2005). This research tries to define the Notion of “material use” and the teachers beliefs of sufficiency who are directly affected by it. This whole research is based on the question “What is a teacher's self sufficiency belief on the use of material”.

Participants

The best source of data in factual science researches are the people or groups that have experienced the notion to be focused on so that they can supply the research with detailed information in depth (Yıldırım & Şimşek, 2005). The orientation point in factual science is personal experience thus these individuals form the participants of the research (Baş & Akturan, 2008). This research, eight teachers assigned in the state of Afyon have been chosen as participants for his research. The participants have been chosen through the random modelling method. 3 of the participants are male and 5 are female. All of the teachers mentioned are university graduates. The age range of the teachers is between 35-45.

DATA COLLECTION PROCESS

The data collection process in factual science researches can be planned with semi structured interview forms and verbal interviews in depth (Baş ve Akturan, 2008). This

research uses semi structured interview forms as a data collection method. The researcher made 35-40 minute long one to one interviews with each teacher in the research group. The purpose of the research has been explained before the interviews started. The researcher assured every teacher that both their and their school's names will be kept confidential and they were asked if they would like to participate in this research. The interviews were held at the school library which was considered as suitable by both the researcher and the teachers. The interviews were conducted in a much less formal format. No form of recording devices were used the interviews as the teachers did not want so. Sufficient spaces for the answer of each question was supplied in the forms and the answers given by the teachers were written in the spaces supplied. The following questions were asked during the interviews.

- What do you think of the effect of the use of materials in the teaching process?
- Can you identify your state of material use?
- What do you think of the teachers having a self sufficiency belief on the use of materials?
- How would you grade yourself in the sense of material use?
- What are the reasons for feeling sufficient or not?
- What kind of guidance do you require in this sense?

Validity and Reliability

The researcher being flexible in qualitative research is a big advantage in the sense of validity. The researcher can resort to new strategies, add new questions to the interview, can perform new interviews which have not been pre-planned, and can resort to other methods of data collection in order to validate the data he has gathered. Whereas, reliability concerns the correctness of the methods, techniques and the persuasiveness of the research results (Yıldırım & Şimşek, 2005). The written documentation of these interviews have been read to the participants and they were asked if any parts should be taken out or added and their approval was taken that the documentation was authentic.

DATA ANALYSIS

Data analysis in factual science research is about revealing experiences and meanings. The data were analyzed using the descriptive analysis method. First step in the data analysis process is to decode interview records. The data of similar themes and notions are gathered and formatted in a way that the reader can understand. The results were presented with a

descriptive commentary and the findings were explained and commented by frequently given real life examples.

FINDINGS

The findings of the research were gathered under some main headings such as the state of the teachers using the materials, the sufficiency of the use, the reasons for sufficiency/insufficiency and recommendations for improvements..

The State of The Use of Materials

The importance of the quality of the education environment in achieving the educational goals is undoubted. Conducting education in a sufficient environment, regardless of level is not a luxury but a necessity. The 1739 numbered MEB directives 53rd article makes this necessity a formal regulation. In addition, the teacher's attitude against the use of material is as important as the material rich environment. Almost all of the participants in this research are of the opinion that use of materials is necessary and they have a supportive function in education. One teacher who participated the research noted the following statements about the necessity of the use of materials in class.:

“Materials help students learn fast and permanently. I use visual material when teaching how to read and write. I realized that students learn faster this way. I omitted the use of materials in some lessons in order to follow my pace chart and saw that the students had difficulties in learning. Thus three students are behind the others. I use materials with 3 students out of 21. The students are more willing and they have fun when I use visual materials. I think it is important to use materials. It both makes my job easier and I feel less tired, besides the students learn faster.” (7 years experienced female teacher)

All the other teachers commented on the use of materials in the scope of mathematic lessons. A fourth grader teacher noted the following:

“The researches revealed that the use of materials is important. The students show negative attitudes and even antipathy against especially math lessons when materials are not used. Simply using a divided tangerine as a material, when teaching fractions helps the student understand the subject better.” (8 years experienced male teacher)

Sufficiency In using materials and Its Reasons

The observation of the self sufficiency of teachers in material use is quite important for the designation of its effect on the student's success. All of the teachers believe that they

are in-sufficient using materials in class except one. They explained the reason for their in sufficiency with lack of experience, not being able to use time efficiently and effectively, the anxiety of falling behind in the Schedule, the fear of making a fool of themselves and the lack of Professional contribution of the lessons taken at college. One teacher explained his in sufficiency of material use with not being able to use time effectively and efficiently with the following words:

“I think I can’t manage to use materials. I do not have time left the other matters if I spend time using materials for one subject. The classrooms are over populated and when I try to use materials I have no time left to complete the curriculum. Using the materials takes a long time and if you try to make the students use them the whole lesson expires. I’m really bad at this. I do not know how the other fellow teachers manage to do this.” (6.5 years experienced male teacher)

Another teacher noted the following words explaining her in sufficiency with lack of experience and the fear of making herself a fool in front of the students:

“I have to use materials when teaching the steps of division otherwise they do not seem to understand, but in other subjects I only teach verbally. If I had been experienced in using materials the case would have been different. I never try to teach a subject with material If I haven’t done it before. I do feel guilty sometimes but I also believe that I’m right in the end Instead of making myself a fool in front of the students trying to use materials I choose no to.(5 years experienced female teacher)

One other teacher explained his in sufficiency with lack of self confidence and the lack of professional contribution of the lessons taken at college, lack of experience and not having a role model and noted the following:

“I believe that a teacher must believe in self sufficiency. I think experience is more important than anything. Besides a role model would really help. The sense of self confidence relies on these two factors. I consider myself weak in the sense of self sufficiency and the main reason for that is I never had the time to both learn and apply the things I learned with only one lesson taken at college. I have nothing missing in theory but I totally had no practical trials. Once I graduated I found myself teaching in a village school. In y early times in teaching my voice used to tremble when using materials, I was afraid that I would make a fool out of myself before my students. I don’t trust myself and I don’t blame myself for this. It is not my fault that I don’t have a an experienced teacher to take as a role model. I have developed an

antipathy against material use because I never had the chance to experience it. I believe that my fear will go away as I gain experience, but I'm not ready yet." (7 years experienced male teacher).

As obviously seen the teachers feel in confident in using materials and they believe that the reasons for this are lack of experience, not being able to use time efficiently and effectively, the anxiety of falling behind in the Schedule, the fear of making a fool of themselves and the lack of Professional contribution of the lessons taken at college.

Recommendations for Solutions

The classroom teachers that have taken pace in the research associated the chance of their improvement in material use with reducing the classroom population, the re-formatting of the material use lessons at college, the simplification of the curriculum and that the Ministry of Education undertaking the material use issue in a different format.

Here are the recommended solutions by the teachers:

"What can a consultant do? The government cannot encourage the use of materials without reducing the classroom population. I don't believe that any solution will work unless the classroom population is reduced." (5 years experienced male teacher)

"Do I need supervision about this? Hmmm... I think not. I don't think we need training on this. I'm a university graduate and I have taken material lessons. Prepared materials as homework assignments But that's not it. The government supplies you with materials but what matters is that you should be able to use them. I think the format of the lesson given at college has to be changed. Besides the curriculum has to be simplified so that we have enough time." (5 years experienced female teacher)

"I think the government should supply us with CDs about the subjects. Not supervisors. When I was a student at college I got a science kit from a newspaper campaign I still use it for my lessons but I'm afraid to use other materials because the CDs I got professionally explained how an experiment should be carried out step by step. Although I'm a teacher I can not perform those experiments as nicely as they are performed on the CDs. This is why I think Cds should be prepared on every subject by the government. In the end they are classroom materials too.(3 years experienced female teacher)

CONCLUSION AND ARGUMENTS

The research shows that materials can affect the thoughts and perceptions of the students significantly. The self sufficiency belief of the teachers who are in charge of the selection and use of the materials are very important in all steps of the teaching process. Although this research aims to reveal the self sufficiency beliefs of teacher on the use of materials in a small group of teachers assigned in the state of Afyon, it provides a mainframe of the attitudes towards the use of materials in teaching. The work group consists of 8 primary school teachers assigned in the state of Afyon. This research uses a factual science pattern and interviews have ben used as means of data collection. At the end of the interviews held with every participant for 35 to 40 minutes it is revealed that the self sufficiency levels of the teachers are low. The teachers explain their low level of sufficiency with lack of experience, not being able to use time efficiently and effectively, the anxiety of falling behind in the Schedule, the fear of making a fool of themselves and the lack of Professional contribution of the lessons taken at college. They have also noted that the solution for this problem lies not with a supervisor but through reducing the classroom population, the re-formatting of the material use lessons at college, the simplification of the curriculum and that the Ministry of Education undertaking the material use issue in a different format.

This research is believed to have an importance in the re consideration of the material lessons at college or changing the methodological approach of the lesson into a more practical based approach and starting a debate on the issue.

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EK: Görüşme Formu

SINIF ÖĞRETMENLERİNİN MATERYAL KULLANIMINA YÖNELİK ÖZ YETERLİK İNANÇLARI

Araştırma Sorusu

Sınıf öğretmenlerinin matematik dersinde materyal kullanımına yönelik öz yeterlilik inançları nelerdir?

Okul :

Tarih ve Saat :

Merhaba, ben Nilgün AKSAN. Gazi Üniversitesi Sınıf Öğretmenliği Eğitimi Anabilim Dalı'nda doktora eğitimimi sürdürmekteyim. Materyal kullanımına yönelik öz yeterlilik inançlarınızla ilgili bir araştırma yapıyorum ve bu konuda sizinle görüşme yapmak istiyorum. Bu görüşmede amacım, derslerde materyal kullanımına yönelik öz yeterlilik inançlarınızı ortaya koymaktır.

Öz yeterlilik, bireyin bir işi ya da uygulamayı yapabilmek için gerekli olan beceri, tutum ve bilgiye sahip olduğu konusundaki inancıdır. Başka bir deyişle, bireyin belli bir başarıyı göstermesindeki kapasitesine olan inancıdır.

Görüşme sürecinde söyleyeceklerinizin tümü gizlidir. Bu bilgileri araştırmacının dışında herhangi bir kimsenin görmesi mümkün değildir. Ayrıca araştırma sonuçlarını yazarken görüşülen öğretmenlerin isimleri kesinlikle saklı tutulacak ve rapora yansıtılmayacaktır. Görüşmeye katılıp katılmamak sizin isteğinize bağlıdır. Görüşme esnasında izin verirseniz kamera kullanmak istiyorum. Bunun sizin açınızdan bir sakıncası var mı? Bana sormak ya da söylemek istediğiniz bir şey yoksa sorulara başlamak istiyorum.

- Materyal kullanımının öğrenme sürecine etkisi hususunda ne düşünüyorsunuz?
- Materyal kullanma durumunuzu tanımlar mısınız?
- Öğretmenin materyal kullanımına yönelik öz yeterlilik inancının olmasını nasıl değerlendiriyorsunuz?
- Materyal kullanma yeterliliğiniz hususunda kendinizi nasıl değerlendiriyorsunuz?
- Kendinizi yeterli hissetme ya da hissetmeme durumunuzun nedenleri nelerdir?
- Bu konuda nasıl bir rehberliğe ihtiyaç duyuyorsunuz?