

ANADOLU LİSELERİ FEN VE MATEMATİK ÖĞRETMENLERİNİN GENEL İNGİLİZCE DÜZEYLERİNİ GELİŞTİRMEK İÇİN DÜZENLENEN HİZMETİÇİ EĞİTİM PROGRAMININ ETKİLİLİĞİ ÜZERİNE GÖRÜŞLERİ

THE PERCEPTIONS OF ANATOLIAN HIGH SCHOOL SCIENCE AND MATHEMATICS TEACHERS ON THE EFFECTIVENESS OF THE IN-SERVICE TRAINING PROGRAM FOR IMPROVING THEIR GENERAL ENGLISH LEVELS

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ÖZET

Bu çalışmanın amacı, Anadolu Lisesi fen ve matematik öğretmenleri için düzenlenen hizmetiçi eğitim programının etkililiğini araştırmaktır. Çalışma süresince, temel olarak Orlich'in AAIM (Duyarlılık, Uygulama, Kazanılan Bilgi ve Becerilerin Sınıfta ve Okulda Uygulanması ve Devam Ettirilmesi) Modeli (1979) ve Caldwell'in Modeli (1989) kullanılmıştır.

Çalışmanın örneklem grubunu, çeşitli ortaöğretim kurumlarında çeşitli düzeylerdeki fen ve matematik öğretmenleri oluşturmaktadır. Çalışmada niteliksel veriler, katılımcıların program sonunda görev yaptıkları okullara döndükten sonra, katıldıkları programın çeşitli düzeylerine ilişkin görüşleri mülakatlar yoluyla alınmıştır. Mülakata katılan öğretmenler, belli özelliklerine (cinsiyetleri, branşları, öğretmenlik tecrübeleri, öğretmenlik yaptıkları okullara) göre grubu temsil edebilecek şekilde seçilmişlerdir. Mülakat sonuçları incelendiğinde, tüm katılımcıların programın değişik basamakları ile ilgili olarak aynı görüşü paylaştıkları bulunmuştur.

Araştırma sonuçları; programın farklı düzeylerinde, katılanların ihtiyaçlarını ve beklentilerini karşılamak amacıyla, çeşitli yöntem, teknik, faaliyetler ve çeşitli kaynakları kullanmaya yönelik kurumsal çabaların varlığını ortaya çıkarmıştır. Buna karşılık, katılımcılar okullarına döndüklerinde, program esnasında öğrendiklerini sınıflarında uygulamadıklarını ve devam ettiremediklerini belirtmişlerdir.

Sonuç olarak, bir hizmetiçi eğitim programının etkililiğinin ve başarısının, program esnasında öğretmen tarafından mesleğinde geliştirilen bilgi, beceri ve tutumların işinde uygulanmasına ve devam ettirilmesine bağlı olduğu söylenebilir. Başka bir deyişle, hizmetiçi eğitim programlarının başarılı ve etkili olması için, programların ihtiyaçlar üzerine kurulması ve öğrenilenleri uygulama ve devam ettirme seviyelerinin detaylı bir şekilde incelenmesi gerekmektedir.

ABSTRACT

The aim of this study is to examine the effectiveness of the inservice training (INSET) program organized for improving the general English levels of Anatolian High School science and mathematics teachers. During the study, Orlich's AAIM (Awareness, Application, Implementation, Maintenance) Model (1979) and Caldwell's Model (1989) were used.

The subjects were high school science and mathematics teachers at various levels. During the study qualitative data was collected by means of interviews held, when the participants were back at their schools, in order to study their views and perceptions in relation to the various levels of the program.

For the interviews the teachers were selected according to certain characteristics (i.e. age, branch, years of experience in teaching, schools in which they have been teaching) in order to have a representative group. The analysis of the interviews revealed that the participants shared the same ideas about the program.

The results of the interviews revealed that, during the various levels of the program, various institutional attempts had been made to satisfy the participants' needs and expectations through utilizing various techniques, methods, activities and supplying various resources. However, when the participants were back at their schools, it was reported they could not implement and maintain their new learning in school and daily classroom activities.

Finally, the effectiveness and success of any INSET program depends on the implementation and maintenance in the teachers' normal professional lives of what has been developed during the program. That is, the implementation and maintenance levels of the programs should be examined completely to ensure the effectiveness and success of the INSET programs.

1.0. INTRODUCTION

Throughout the 20th century, changes and developments in science and technology have continuously taken place. It is inevitable that these changes and developments have effected societies and individuals. Individuals have therefore felt the need to renew, refresh and prepare themselves for new roles, responsibilities, tasks and duties both in their professional and in their personal lives.

According to Georgiades (O'Dell and O'Hair, 1995), rapid changes mostly affect society and changes in society have direct or indirect impacts on schools and on the education of teachers. Within this framework, as is stated by Glickman *et. al.* (O'Dell and O'Hair, 1995), if schools aim at providing students with opportunities to experience acquired knowledge, to be engaged in one's own learning and to provide the application of these new experiences to society at large, teachers in schools must possess and demonstrate certain qualities. At this point, in-service training (INSET) programs are regarded as necessary means to develop the teachers' relevant qualities.

Orlich (1979) proposes four stages for an effective INSET program in his AAIM model, which stands for Awareness, Application, Implementation and Maintenance. In his model, Caldwell (1989) develops Orlich's AAIM model and presents his stages as Readiness and Planning, Training, Implementation and Maintenance. His model refers to Orlich's AAIM model although different names are used for the same stages.

According to Orlich (1979), the training projects or activities which are designed to provide information about new concepts, developments, equipment, curricula or teaching or administrative techniques are classified as "awareness" sessions, which are essential to keep all staff personnel up-to-date and informed about professionally related skills. Moreover, Caldwell (1989) describes this stage under the two headings of Readiness (selecting, studying, making commitments to new behaviour and programs to improve professional practice and student achievement) and Planning (developing long-term plans to attain the changes identified during the readiness stage).

The second stage of Orlich's model (1979) is Application, which could be interpreted as something used, practiced, or tried out during the program in a context different from the context or situation initially learned. In other words, something is practiced or tried out during the program in various situations by means of various strategies, techniques and activities and experiencing is regarded as the essential part/attribute of

this stage. Caldwell (1989), on the other hand, calls this stage the Training stage during which the courses are conducted based upon what is known about the adult learners and plans are implemented to help the trainers learn new skills and knowledge and to develop attitudes needed to achieve the goals.

Orlich (1979) calls his third stage the Implementation stage, during which all appropriate teachers/administrators are involved in a full spectrum of INSET activities which relate the objectives of the program to the intensive and full-scale work of application. Caldwell (1989) defines the implementation stage as that in which the participants make the transition from learning in the controlled setting of INSET to adjusting and adapting what they have learned to part of their daily work activities.

According to Orlich (1979), Maintenance addresses a continued and a longitudinal "low level of visibility" (i.e. difficulty in observing the effects and the uses of new learnings in the long term) set of in-service training activities which follow any major implementation effort. New people are hired, staff change grade levels or switch buildings. Caldwell (1989) defines maintenance as professional behaviour, used in daily classroom and school practice that is monitored in order to ensure its continuation.

2.0. METHOD

Problem and Sub-Problem(s)

"What are the Anatolian High School science and mathematics teachers' perceptions of the effectiveness of the INSET program for improving their general English levels ?"

THE AWARENESS LEVEL OF THE PROGRAM

a. What are the Anatolian High School science and mathematics teachers' perceptions about the awareness level of the INSET program ?

b. What are their perceptions in terms of their expectations and needs in relation to the whole INSET program?

THE APPLICATION LEVEL OF THE PROGRAM

a. What are the teachers' perceptions about the application level of the INSET program in relation to the structure of the program, the instructional skills

needed by the instructors and their expectations during the INSET program?

THE IMPLEMENTATION AND MAINTENANCE LEVELS OF THE PROGRAM

a. What are the teachers' perceptions about the implementation and maintenance of English Language skills developed during the INSET program at their schools?

b. What are the effects of certain teachers' characteristics on their perceptions in relation to the different levels of the INSET program?

THE SUBJECTS OF THE STUDY

The subjects of the study were the teachers who were interviewed and their total number was twelve ($n = 12$). These teachers were actually teaching at various Anatolian High Schools and Public High Schools in Ankara. While selecting the teachers for interview, the important point was to have representation of the Anatolian High Schools and Public High Schools involved in the study (i.e from Gazi Anadolu Lisesi 1 teacher teaching biology, from M.Emin Resulzade Anadolu Lisesi 3 teachers teaching physics & mathematics, from Çankaya Anadolu Lisesi 1 teacher teaching biology, from Çankaya Atatürk Anadolu Lisesi 2 teachers teaching biology, from Cumhuriyet Ticaret Meslek Lisesi 1 teacher teaching mathematics, from Halide Edip Lisesi 1 teacher teaching Physics, from Balgat Endüstri Ticaret Meslek Lisesi 2 teachers teaching Mathematics & Biology, and from Balgat Ticaret Meslek Lisesi 1 teacher teaching Physics).

THE DATA COLLECTION TECHNIQUES

During the study, interviews were held in relation to studying the problem for different levels of the program. For the preparation of the interview questions, the basic dimensions and activities suggested by the model, the literature in this area (Orlich: 1979, Caldwell:1989, Smith:1989, Paykoç and Schorn:1993), and the criticisms and opinions of the subject specialists were taken into account.

The interviews were held with the teachers in their schools in order to examine their professional behaviour, to obtain their overall opinions about the different levels of the INSET program in which they

had participated and to learn their thoughts, opinions and suggestions for the future. The interviews involved 8 questions about the awareness level, 5 questions about the application level, 12 questions (4 for the Public High School teachers and 8 for the Anatolian High School teachers) about the implementation and the maintenance level of the program and 5 questions about the suggestion for the future INSET programs.

THE DATA COLLECTION PROCEDURE

When the teachers were back at their schools in April and May 1996, interviews with teachers were applied by the researcher. In the selection of teachers for the interviews their subjects, sexes, years of teaching experience and the type of school in which they taught (Anatolian High School/Public High School) were taken into consideration.

THE LIMITATIONS OF THE STUDY

The following could be stated as the limitations of this study:

1. The interviews were conducted by the researcher with the teachers who have been teaching in Ankara.
2. The teachers selected for the interviews have been teaching at various Anatolian High Schools and Public High Schools located in Ankara.
3. For the interviews, only teachers were selected.

3.0.THE RESULTS OF THE INTERVIEWS

3.1. The Teachers' Perceptions of the About the Awareness Levels of the Whole INSET Program:

Generally most of the teachers, 9 out of 12, expressed positive attitudes towards the INSET programs and pointed out the importance of the INSET programs. They believed that the administrative staff were not aware of the importance of the INSET programs. They also believed that the administrative staff had perceived the INSET programs as obstacles. For example one of the teachers pointed out that the INSET programs are generally perceived as a vacation, a waste of time and an obstacle to office work by the principals and the administrative staff of our schools.

A majority of the teachers stated that they had been informed about the INSET program at Gazi University by an official letter from the MoNE. One of them

learned about it through a booklet sent to the school by the MoNE. As far as the number of teachers from their schools who attended such courses was concerned, one third of the teachers, 4 out of 12, said that they were the only teachers to attend the INSET program from their schools.

Meanwhile, almost all of the teachers agreed on the fact that they had been selected for the INSET program on the basis of their applications to the MoNE and to their school administrations. One of the teachers had written a petition to his/her principal in order to attend the program. Another stated that he/she was informed by the official letter and booklet sent to his/her school by the In-Service Training Department and by the MoNE. Most of the teachers, 9 out of 12, said that they had attended the INSET program in order to improve their English levels related to their fields of study, to be assigned to the Anatolian High Schools by the end of the program (but most of the teachers were not assigned to any of the Anatolian High Schools by the end of the program), and to present their lessons in English.

A majority of the teachers stated that before they attended the program they had expected to learn the use of English in their teaching and/or in presenting their lessons in English (i.e. how to teach physics, mathematics, biology). Almost all of the teachers emphasized that when they were at their schools (i.e. before attending to the program), they had not been given satisfactory information about the INSET program. Only when they were at Gazi University (at the beginning of the program), did some of the teachers say that they had been informed generally about the structure of the program-its length, its aims, its content and its limitations.

3.2. The Teachers' Perceptions of the Application Level of the INSET Program:

Some of the teachers agreed on the fact that their schools had close relations with the universities and the institutions in their environments regarding the INSET activities. It was also stated that their administrative staff had encouraged them to participate in the INSET activities. Some of the teachers emphasized the appropriateness of the INSET programs meeting their needs.

In relation to the attitudes and ideas of the teachers about the INSET programs, almost all of the teachers expressed positive attitudes towards the INSET programs and also mentioned the benefits and importance of the INSET programs to their professional

and personal lives. It was also pointed out by the teachers that their ideas and suggestions should be taken into consideration whenever decisions are taken in their schools about the INSET programs. In relation to this, they expressed wishes to take part in the INSET activities individually. The teachers also mentioned the need for the ideas of teachers and administrative staff to be taken into consideration in school-related decisions, while the ideas of the parents are useful for social activities and for the cooperation among these parties in order to reach the best quality in education.

Almost all of the teachers said that the school administrations and the MoNE had neglected their participation: their knowledge, ideas, feelings, experience and suggestions, in the decision-making process. It was emphasized by almost all of the teachers that they should be involved in the process of forming and developing school programs. In other words, before the school administrations and the MoNE make the decisions, they should provide for the participation of the teachers in the decision-making process. From the view point of the appropriateness of the program regarding the teachers' characteristics (i.e. their subjects, ages, sexes, experience in teaching, etc.) it was stressed by the teachers that the program had been appropriate for them.

As far as the behaviour and attitudes of the instructors towards the teachers were concerned, the teachers criticized the behaviour and attitudes of the instructors towards them. One of the teachers pointed out that the instructors had treated and regarded them as primary school students and had forgotten the fact that they are teachers like them. From the view point of the instructional activities of the program, the teachers claimed that the instructional activities were not appropriate for them. They generally stated that the instructional activities were about grammatical structures rather than the teaching of science and mathematics in English.

In relation to the effectiveness of alternative techniques, three teachers pointed out that the alternative techniques were not used effectively. Only three of the teachers stated that the INSET program they attended had partly met their needs because, it was pointed out, their needs had not been correctly and appropriately assessed and the selection of the program instructors had not been made correctly for the program.

Eight teachers said that the following points had been neglected for various reasons: providing an appropriate environment, making the lessons more interesting, the clarity of the explanations and the use of different methods. They generally said that none of

these had been performed well since the aim of the instructors had been just to complete the program and also because of the mid-term examinations and the grading system. They also added that the explanations had changed from one instructor to another and that the explanations had not been easy for them to understand.

3.3. The Teachers' Perceptions about the Implementation and the Maintenance Levels of the English Language Skills Developed During the INSET Program:

In relation to the changes that had taken place in their general English Language levels, 8 out of 12 believed that some positive changes had taken place in their general English levels when the program was over. In relation to this they had expressed their positive feelings about the program. About the necessity of INSET programs, all of the teachers (n = 12) expressed their complete agreement in spite of the problems that had occurred during the program. All of the teachers noted that nothing had changed or happened to them positively, as compared to their previous status, in order to implement and maintain what they had learned during the program. The only thing that they had was their certificate from the MoNE.

Following the program, when the teachers were at their schools, as compared to the beginning of the program no change in the behaviour or attitudes of the other teachers had been recognized by the teachers. It was also expressed that the teachers had not taken over the responsibility of any project or group work activity. In relation to the resources for applying their new English Language knowledge and skills for English Language related activities in their schools, nearly half of the teachers, 5 out of 12, pointed out that they had enough books and necessary equipment.

When the views of the teachers were taken, it was noticed that teachers from various Anatolian and Public High Schools generally pointed out that they had had some difficulties during the program. These difficulties were generally related to the content of the program, to the opportunities offered to the teachers during the program in order to develop their language skills, to the use of educational technology to the instructors of the program and to the institution that was responsible for the INSET program. In relation to the content of the program, it was reported that the course content should be related to the teaching of science and mathematics in English and to their school programs. Some teachers stated that what was taught during the program had been about general English, not about how to teach

science and mathematics in English and they pointed out that they learned things which were not related to their school science and mathematics programs.

Concerning the content of the INSET programs, it was pointed out that it should be related to the teachers' subject matters and should cover all the subjects that they have been teaching at their schools in a detailed way. About the skills developed during the INSET program, the teachers stated that mainly reading and writing skills had been dealt with and developed. In relation to this, the teachers said that it had been difficult for them to reach the subject specialists, and that this had depended on personal relations.

In relation to the nature of the efforts to improve their English Language levels, the teachers mentioned their individual efforts through reading short stories, listening to cassettes, making translations from English to Turkish and studying their course notes. The teachers also emphasized the use of audio - visual aids together with instructional activities in order to stimulate and to promote their learning and their English Language levels.

About the instructors of the program, it was stated that the instructors should be competent, experienced and skillful enough to show the teachers the different ways of teaching science and mathematics in English. The teachers generally stated that, for these programs, the instructors have to be assigned carefully and they should be serious, well-prepared and organized, respectful towards the teachers and have to think of using the class time more effectively rather than wasting time in order to make more money. Another point stated by the teachers concerned the inefficiency of the instructors' experience and skills in teaching science and mathematics in English. At the same time it was pointed out that the programs had to be strictly monitored by the MoNE.

When the feelings and ideas of the teachers about the improvement of the INSET programs for the future are concerned, the teachers generally expressed that the importance of the INSET programs should be perceived by all the related people as a serious issue, the teachers need to be informed in detailed about the program in advance, the teachers' needs, ideas, feelings and suggestions need to be considered, the placement tests need to be done seriously, during the INSET programs, the class hours need to be used as effectively as possible by the instructors in order to achieve the objectives of the program, the INSET programs need to be monitored strictly and continuously by the MoNE and by the faculty and incentives need to be used when the teachers are back at school.

When the interview questions were analyzed, it was seen that the teachers generally shared the same views about the various levels of the INSET programs they had attended. When the answers given during the interviews were analyzed in terms of their experience in teaching, it was clearly observed and recognized that again the teachers generally shared the same views in relation to the different levels of the INSET programs. At the same time, when these answers were analyzed from the view point of the subjects (biology, physics and mathematics) it was once more observed that the teachers, in general, shared the same view points about the different levels of INSET programs.

4.0. RECOMMENDATIONS

4.1. Recommendations for the Awareness Levels of the INSET Programs:

The INSET programs need to awake the teachers' awareness of the educational problems at their schools, familiarize the teachers with the latest ideas and trends in their fields, provide resources and means that are available to the teachers for presenting their lessons in English, teach the teachers the use of the English language to conduct their lessons in English, meet the needs of the teachers and be perceived as one of the means for improving the qualifications of the teachers by the administration staff at their schools.

4.2. Recommendations for the Application Levels of the INSET Programs:

For the Application Level of the INSET programs, recommendations could be made in two areas - the structures of the programs and the instructional skills of the instructors.

With respect to the structures of the Application Levels of the INSET programs; the teachers need to participate in the activities actively at their schools, the decisions about the various aspects of the program need to be determined before it is actualized, during the program the alternative techniques and methods need to be used by the instructors according to the needs of the teachers, the programs need to take into account the information about the teachers, the program objectives and the contents need to aim at learning of new ideas, skills, attitudes and behaviours related to the field of study, the instructional activities need to be relevant to the teachers, cooperation between the schools and universities needs to continue and active participation of the teachers in various decision-making procedures needs to be provided for.

With respect to the instructional skills of the instructors; making the activities interesting, presenting the activities in a sequence, procedures for getting the teachers' involvement into the process need to be provided, the teachers' participation needs to be encouraged by the instructors, and the class hours need to be used as effectively as possible.

4.3. Recommendations for the Implementation and the Maintenance Levels of the INSET Programs:

For the Implementation and Maintenance Levels of the INSET programs: the necessary support and help should be given to the teachers by the school administrative staff necessary motivation and encouragement should be provided to the teachers, the subject specialists need to be accessible to the teachers in order to solve their English language related problems, the teachers should help their colleagues in their English Language related problems, the teachers need to be given some responsibilities and opportunities to implement and maintain their English language skills they develop during the INSET program in their daily classroom activities and the shortcomings of the study need to be taken into consideration.

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