



Evaluation of the Professional Development Program on Web Based Content Development*

Bünyamin YURDAKUL^a
Ege University

Öner USLU^b
Bornova DDoNE

Esra ÇAKAR^c
Mehmet Akif Ersoy University

Derya G. YILDIZ^d
İbrahim Kavur Elementary School

Abstract

The aim of this study is to evaluate the professional development program on web based content development (WBCD) designed by the Ministry of National Education (MoNE). Based on the theoretical CIPP model by Stufflebeam and Guskey's levels of evaluation, the study was carried out as a case study. The study group consisted of the courses that opened in Izmir in the spring semester of 2009, in which 37 teachers and four trainers attended. Quantitative data for the study was collected by two separate questionnaire forms, while the qualitative data was gathered from focus group and individual interview forms. The quantitative data collected was analyzed using descriptive statistics, while content analysis was applied to the qualitative data. The results of the study showed that the program had been designed without a needs analysis, that teachers were reluctant to implement the program, and that at the end of the program implementation, teachers had not managed to prepare web based instructional materials despite the fact that they had been included in the objectives of the program. In addition, it was found that teachers did not develop web based instructional materials for such reasons as the frequency of changes in curriculum, the ease of use of the existing/ready materials, and the perception of developing web based materials as a challenging task requiring expertise and team work. The study showed that the WBCD program could not meet its objectives, and the program was therefore found to be inadequate in encouraging teachers to integrate their instructions with technology. It was recommended that professional development programs like WBCD should be ongoing in all areas of the profession, rather than at particular periods of time.

Keywords

Program Evaluation, Program Evaluation Models, Professional Development of Teachers, Technology Integration, Web Based Content Development.

- * This study is the extended version of the paper presented at the 13th International "ICT in the Education of the Balkan Countries" held in Varna, Bulgaria between June 17-19, 2010.
- a **Bünyamin YURDAKUL, Ph.D.**, is currently an assistant professor of Curriculum and Instruction. His research interests include teachers' curriculum orientation, teacher education, constructivist curricula, qualitative research in education, and metacognitive teaching strategies. *Correspondence*: Ege University, Faculty of Education, Department of Educational Sciences, Curriculum and Instruction Program, 35040, Bornova, Izmir, Turkey. Email: bunyamin.yurdakul@ege.edu.tr
- b **Öner USLU, Ph.D.**, is currently an instructor at Bornova District Directorate of National Education. Contact: Bornova District Directorate of National Education, Erzene Mh., 80. Sokak, No:18, 35040, Bornova, Izmir, Turkey. Email: onerusu@gmail.com
- c **Esra ÇAKAR, Ph.D.**, is currently a research assistant of Curriculum and Instruction. Contact: Mehmet Akif Ersoy University, Faculty of Education, Department of Educational Sciences, Curriculum and Instruction Program, 15100, Burdur, Turkey. Email: esracakar@mehmetakif.edu.tr
- d **Derya G. YILDIZ, Ph.D.**, is currently a teacher at İbrahim Kavur Elementary School. Contact: İbrahim Kavur Elementary School, Selvili Mh., 4019. Sk., 35190, Karabağlar, Izmir, Turkey. Email: dgogebakan@yahoo.com

Advances in science and technology have changed individuals' lives and performing habits (Bayazit & Seferoğlu, 2009). One of the important factors in attaining change is technology integration. Plans for instructional technology are required in order to achieve this integration. Moreover, professional development programs for teachers should be included in these plans (Anderson, 1996, 1999; Şahinkayası & Şahinkayası, 2004).

Teachers' professional development, which is considered a part of lifelong education (Bümen, Ateş, Çakar, Ural & Acar, 2012), is defined as processes and activities designed for teachers to further develop their students, to take their students forward, and to improve their professional knowledge, skills, and attitudes (Guskey, 2000, p. 16). Professional development programs are considered to be continuous and job-embedded processes rather than short term or ad-hoc events (Blandford, 2000; Guskey, 2000). It is stated that professional development, which is considered as the instrument of the reformation, restructuring, and transformation efforts at schools (Guskey, 2007), makes change easier (Blandford, 2000).

Every year, an average of 507.713 teachers participate in professional development activities in Turkey (Milli Eğitim Bakanlığı [MEB], 2012a). Approximately half of the teachers (43.94%; n=25204) stated the need for professional development in instructional technologies and material development (MEB, 2012b). One of the activities organized by the MoNE in response to these needs was the professional development program on web based content development (WBCD).

Curricula are among the fundamental elements of the education to reach its objectives (Yurdakul, 2004). However, as most of the programs are not evaluated, data pertaining to their evaluation has not been collected. Evaluation makes it possible to decide whether individuals will adopt, revise, or reject a program (Ornstein & Hunkins, 1988). According to Stufflebeam (2000), evaluation highlights the benefits of a program through systematic examination. The objectives of a curriculum are realized through learning activities carried out within the context of the curriculum. However, the fact that there are too many variables affecting this process makes curriculum control difficult. Such difficulties pave the way for different program evaluation approaches and models. One of these models is Stufflebeam's context, input, process and product (CIPP) model (Stufflebeam, 2000).

Guskey (2002) also proposes five critical levels to answering the question of whether or not the effort put into the evaluation of professional development programs is worthwhile.

Taken together with the rationales in the related literature (Guskey, 2002; Fitzpatrick, Sanders & Worthen, 2004; Kellaghan, Stufflebeam & Wingate, 2003; Stufflebeam, 2000, 2003; Yüksel & Sağlam, 2012) Stufflebeam's (2000) program evaluation model and Guskey's (2002) suggestions for the evaluation of professional development programs were adopted theoretically in this study. The main purpose of this study is to evaluate the WBCD professional development program in terms of using program documents and the reactions of program stakeholders in order to obtain information that can contribute to the improvement of professional development programs. With this aim, this study searched for an answer to the question "How do the stakeholders of the WBCD program evaluate its implementations in terms of a) context, b) input, c) process and d) product and effect?"

Method

Research Design

On the basis of different rationales in the related literature (Cohen & Manion, 1990; Cohen, Manion, & Morrison, 2007; Yıldırım & Şimşek, 2013; Yin, 2003), case study was selected among the qualitative research designs, and *case study* was applied in this study. In case studies, a number of data collection methods can be used individually or together, depending on the expectations of the researchers and the nature of the problem (Yıldırım & Şimşek, 2013, p. 102, 321). Yin (2003, p. 15) states that case studies might be based on a mixture of qualitative and quantitative evidence, and that observation is not always required as a source of evidence. Within the context of the related literature, triangulation was accepted as the main principle in this study; therefore both qualitative and quantitative data was collected before, during and after the implementation of the WBCD program, by appropriating the program document as the source of data and teachers and trainers as the stakeholders.

Case

The WBCD professional development program has been implemented in educational institutions all around Turkey (MEB, 2008). In this study, among the purposive sampling methods, typical case sampling was used (Patton, 1987), and

implementations at four different schools in two towns in Izmir were evaluated during the spring semester of 2009. The main purpose of the WBCD program is to effectively integrate web based content development software into program activities. The WBCD professional development program is carried out over a period of 90 hours spanning 15 days, and is conducted in settings where the number of participating teachers is not less than 12, with each teacher having access to a PC. Elementary and secondary school teachers are also invited to participate in the professional development program. In the program used for data collection in this study, teachers joined program implementation activities for six hours each day over a period of three weeks. The courses aimed at instructional programs like Fireworks CS3, Photoshop CS3, Flash CS3, Illustrator CS3, Acrobat PDFMaker, Dreamweaver CS3, and Contribute CS3. At the end of the program, a multiple choice test was administered and successful teachers received a certificate. Moreover, teachers were asked to develop web based instructional materials using the software they had learned within the month following the end of the program.

Participants

The study was carried out with 37 teachers and 4 trainers at four separate schools with the permission of the school management and the voluntary participation of the program stakeholders. Three of the trainers were male and one was female. Three of them had over 15 years of experience while one had been on the job for less than 10 years. A large majority of the teachers were elementary teachers ($f = 16$; 43.2%). While almost one third of the teachers ($f = 14$; 37.8%) had more than six years of computer experiences; 13.5% ($f = 5$) of them had been using computers for less than one year; all of them had personal computers and all but one had internet connection at home. The teachers usually used computers for e-school applications ($f = 35$; 94.6%), preparing exam questions ($f = 30$; 81.1%), preparing course documents and activities ($f = 28$; 75.7%), and research ($f = 27$; 73.0%). In addition, 83.8% ($f = 31$) of the teachers had computers, 64.9% ($f = 24$) had an internet connection, 81.1% ($f = 30$) had projection and 5.4% ($f = 2$) had smart boards in their classrooms. Moreover, 56.8% ($f = 21$) of the teachers usually felt the need for the help of the PC in preparing visual materials.

Instruments

Two separate questionnaire forms were designed to be applied at the beginning (March 2009) and the end (June 2009) of the WBCD professional development program. A total of 20 open- and closed-ended questions were included in the CIPP-I questionnaire. The findings obtained from the first 13 of these questions were used to describe participants. The other seven questions were designed both to evaluate the *context* and add meaning to the findings obtained from the input, process, and product evaluation.

The second (CIPP-II) questionnaire was designed in a five-point scale type and included content (Item Number "K" =10), physical environment (K=15), input (K=20), process (K=44) and product (K=14) indicators. In order to obtain more detailed data from the participants, several open-ended questions were included in the questionnaire: one question related to physical environment; four to process; and four to solidify the judgments regarding the product.

In-depth understanding can be improved through in-depth interviewing (Rossman & Rallis, 1998), and an interview adds some insight to externally observed behaviors (Patton, 1987). On this basis, and considering that it could enrich our knowledge of the program evaluation, focus group interview guides were designed for teachers, as well as individual interview guides for trainers. The focus group interview guide included a total of seven questions, while the individual interview forms consisted of five questions and were developed upon trial application. At the end of the WBCD program implementation, focus group interviews were held with six teachers chosen using *maximum variation* sampling (Patton, 1987). Interviews were held over two sessions and lasted approximately an hour each. In June 2009, individual interviews of approximately 45 minutes were conducted with two volunteer trainers.

Data Analysis

Analysis of the Quantitative Data: Descriptive statistics of frequency (f), percentage (%), and means (\bar{x}) were used for the analysis of the questionnaires.

Analysis of the Qualitative Data: Content analysis was used to analyze the qualitative data. At the preparation stage for analysis, recordings were transcribed. While coding the qualitative data, the

qualitative data set was read without interruption and was coded simultaneously by two researchers using a code list. Also, to avoid ethical issues during coding, trainers were coded with the letter "T," the schools were coded as "YB and FE" and teachers as "P1, P2...Pn." Coding was revised by four researchers. Through discussion, themes were constructed where groups of codes were found to form coherent sub-sets, and the criterion that requires these codes to be taken together was identified as the theme topic (Yurdakul, 2004). Themes were associated with the sub-dimensions (categories) of the research problem. Finally, findings were identified according to certain phenomena by using appropriate focused quotations, and the qualitative data was interpreted and reported.

Validity and Reliability

A number of strategies are offered to ensure validity and reliability in qualitative research (LeCompte & Goetz, 1982; Miles & Huberman, 1994; Yıldırım & Şimşek, 2013). In this study, the validity and reliability of the qualitative findings were ensured by *i*) transcribing and keeping interview records without any change, *ii*) sharing the data set with the interviewees via email, *iii*) using direct quotations without making any comments, *iv*) employing different methods of data collection and including quotations of different participants (data triangulation), *v*) getting confirmation from participants and researchers, and *vi*) describing research design, the participants, the development of data collection instruments, data collection, data analysis, and interpretation in detail. Finally, the position, assumptions, and efficacy (Mertens, 1998) of the researchers in the process of the study is specified in the research report.

Results

Context Evaluation

Results from the *context evaluation* showed that almost half of the teachers (51.4%) participated in the WBCD program involuntarily. At the end of the implementation of the program, the statement "*I participated in this in-service training program voluntarily*" was approved by the teachers with a ratio of $\bar{x} = 2.54$. The reasons for teachers' reluctance were listed as *not having enough time, being obliged by MoNE, and disruption of their daily routine*. Another important contribution to

participant reluctance was the timing of the course, which was evaluated as inappropriate by 64.9% of the teachers prior to the program implementation. After implementation, teachers agreed with the statement "*The date of the in-service training is appropriate*" at a ratio of $\bar{x} = 1.97$. Qualitative findings on the timing of the course also supported the quantitative findings:

"We attended the courses after our classes. I teach for six hours every day, and this [WBCD professional development program] was too much. Our lives changed during those three weeks. All the work we had planned for our afternoons was left incomplete. Since the program started without sufficient warning and was not optional, only a quarter of it was effective for me." [FE-P1]

Findings showed that the timing of the program was inappropriate due to reasons like the *intensity of the primary education curriculum that obliged teachers to stay at school and teach before or after the program implementation, busy workload at the end of term, and disruption for teachers' daily routine*. While the teachers stated that the most convenient timing would have been the seminar period at the beginning (before the semester starts) or the end (after the semester finishes), according to the trainers, there are some problems with carrying out professional development programs during these periods:

"...I believe colleagues [participating teachers] would feel more comfortable in their minds. However, when school ends, colleagues immediately become too relaxed. I observed that courses held throughout the year were better. [In the seminar period]... as soon as students leave, they [the teachers] feel like they are on holiday ..." [T-1].

Another variable dealt with in the context evaluation was the level of preparation of the teachers for the course. In the qualitative findings, both trainers and teachers pointed out their lack of preparation. Findings also showed that a teacher's readiness to take part in the program also depended on the strength of their belief that the contents of the program would not be *affective*, and on their insufficient *prior knowledge* and *cognitive* skills:

"Also [teachers] are so incompetent in terms of knowledge... In my last course, I had to teach 2 of the 20 teachers how to use a mouse. You will teach action script on Flash, but the teachers don't yet know how to use a mouse.

You can imagine what a torture it is both for me and for them... And [also] they are not ready psychologically. They don't want this course, they are so unwilling." [T-2]

Program objectives are also included within the context evaluation. Teachers stated that they had been informed about the objectives of the WBCD program (48.7%; n = 18) by the trainers. Prior to the implementation of the program, questions were asked in order to determine teachers' awareness and expectations concerning the WBCD objectives, and the teachers answers' were categorized under computer skills (CS) and technology integration (TI). Also, their awareness and expectations concerning the program objectives were found to be compatible with each other.

Table 1

A compatibility table of teachers awareness of the WBCD professional development program objectives with their own expectations of the program

	Computer Skills (CS)	Technology Integration (TI)
Awareness of the WBCD professional development program objectives	<ul style="list-style-type: none"> Designing a web site* Encouraging computer use Sharing files Using Photo-shop 	<ul style="list-style-type: none"> Designing a web site* Developing instructional materials Developing web based content Improving instruction skills Reflecting technological advancements to the class
Expectations from the WBCD program	<ul style="list-style-type: none"> Using a computer efficiently and effectively Learning new programs Designing a web site * Improving computer skills 	<ul style="list-style-type: none"> Integration with technology Developing instructional materials Sharing instructional materials with colleagues Being helpful to students

*This falls under both categories in terms of program objectives.

As seen in Table 1, the perception of the program prior to the implementation was that the content could meet teachers' needs. However, findings obtained after the implementation of the program showed that obstacles such as *not being able to find enough time to practice outside the course, insufficient length of course, low level of readiness, difficulty in perceiving the subject matter, availability of materials similar to those that can be developed using the suggested method, overall reluctance of participants*, and the concern that *web based material development is a task requiring expertise* were still present at the end of the course.

"I don't think the developers [of the WBCD professional development program] know the teachers or are in close contact with primary school teachers anyway. I don't know why they designed such a thing." [T-2]

"... I think it is a completely professional job. There are many people who already save their time on this, earn money from this, whose job it is; what they do is in fact enough for us." [YB-P1]

Input Evaluation

The WBCD program was accepted as the *input* of the study, and the participants were asked for their opinions about the program design. The teachers assessed program objectives in terms of their attainability ($\bar{x} = 3.55$). One of the trainers stated that the program objectives were appropriate for teachers by saying: "*I find the course content useful. The purpose is great. It is a course that teaches someone how to catch a fish instead of giving them one.*" [T-1]. Even though the intention of the course was found to be appropriate, it seemed impossible to attain these objectives in the time scheduled for the program.

Another component of the input was taken as the *content*. Quantitative findings demonstrated that the content was compatible with the objectives, was understandable, interesting and up-to-date, whereas qualitative findings revealed that it was too much, content-time compliance was not taken into consideration, and teachers were insufficiently prepared:

"[The program's] content is too sophisticated, it projects teaching a great number of programs." [T-2]

"The most important problem was that it [the content] was too demanding and above the existing level of ability." [YB-P3]

"Timing was a problem. The content that is presented in five or six months on other courses was presented to us in only three weeks ... I'll mention time again. The time [allocated] for this content and these objectives is not appropriate." [YB-P2]

In addition to the teaching and learning activities, the WBCD program plan also explains how evaluations should be. Evaluations of how the WBCD program plan is put into practice are dealt with in process and product-effect evaluations.

Process Evaluation

It was found quantitatively in the *process* dimension of the WBCD program that the participants mostly agreed ($\bar{x} = 4.29$) that the teacher explained the benefits of the covered content and his/her teaching methods were compatible with the objectives ($\bar{x} = 4.03$), and also he/she employed the most appropriate materials ($\bar{x} = 3.71$). Qualitative findings, on the other hand, showed that mainly the *demonstration* method was used in the learning-teaching processes, and the *instructions* and *explanations* in the process were effective:

“[The trainer] did the first one as an example and then by instructing step-by-step told us “you do it now, you create it now.” Those activities were nice.” [YB-P1]

The teachers stated that at the beginning of the lessons the trainers would remind them of the related prerequisite information ($\bar{x} = 3.97$), gave them clues on how to carry out an activity ($\bar{x} = 3.97$), provided assignments that effectively reinforced the content ($\bar{x} = 3.66$), and that the examples provided helped them to learn ($\bar{x} = 3.86$). The teachers also emphasized that enough exercises and activities were done on the present subjects ($\bar{x} = 3.66$), and that additional work was included on subjects that were not put into practice ($\bar{x} = 3.49$). Stating that their effort for what needed to be learnt was reinforced ($\bar{x} = 3.66$), the teachers also said that they got feedback on the activities they conducted ($\bar{x} = 3.91$).

As mentioned in the input evaluation, findings from the process evaluation revealed that the teachers were dissatisfied with the instructional time for the lessons. In addition to this, there were also problems in finding the time to practice the different processes. The qualitative findings were observed to be compatible with the quantitative findings:

“...as he/she [trainer] had to explain things, we couldn't go into the details of everything. Therefore, it became an obligation for us rather than enjoyable. It has to be done, so let's do and get through it. You start to get [the feeling of] 'let's do it so that it is over quickly. When are we going to get out? Do we have a chance to finish earlier today?’” [YB-P1]

In addition to the timing, the mixed abilities of the teachers with regards to their knowledge of computer programs meant that the trainers made some changes to the program:

“The syllabus of the course cannot be covered in 90 hours. Consulting the ministry inspectors as well, we reduced the course content. After reducing it to half, we even simplified it a little more. We also made some necessary additions. That is, the course syllabus is not a realistic one.” [T-2]

Although in the quantitative findings it is accepted that measurement and evaluation activities determine student learning level correctly ($\bar{x} = 3.47$), the qualitative findings revealed some perceived problems in measurement and evaluation of the participants' abilities. A written exam was administered on only one of the courses. In others, the teachers were evaluated according to the web based instructional materials that they developed. However, some problems in the evaluation of the web based instructional materials also occurred:

“...OK, now you create your web site using what you have learnt and bring it to us on a CD. How could they be sure that we created this site? For instance, I go out and have it done. Besides nobody does it for free. There is a market for this outside, it has a fiscal value for people today...” [YB-P1]

As one can see, web based instructional materials were not developed by some of the teachers themselves, but by external professionals. In addition, although the course plan offers an evaluation of participants through multiple-choice tests, multiple-choice tests were not administered because of the trainers' concerns for failure:

“...It is not possible to make an objective evaluation ... If I create an exam, only one out of 15 teachers may pass. [Regarding teachers' concerns about being evaluated] So at the beginning I tell them ‘you don't have to worry about passing the course. Everyone will get a certificate.’ and ‘You are going to develop something in your own field of expertise. I will tell you how you can do it easily anyway. That project will be your visa.’” [T-1]

As an extra dimension to the process of evaluation, the trainers were also assessed as facilitators by the teachers ($\bar{x} = 4.54$). Quantitative findings were compatible with the qualitative findings.

Product and Effect Evaluation

Within the context of an evaluation of *product and effect*, the WBCD professional development program yielded positive outputs for teachers in

encouraging them to use computers ($\bar{x} = 3.79$), keeping up with the advances in information technologies ($\bar{x} = 3.62$), improving their computer skills ($\bar{x} = 3.76$), and increasing professional competencies ($\bar{x} = 3.47$). However, the teachers could not gain competence in developing web based instructional material. The teachers stated that they would not be likely to develop the suggested web based instructional material citing reasons such as *frequent changes in the curriculum, the ease of use of existing materials, the difficulty of developing materials for each class, and the perception of developing web based materials as a challenging task that requires expertise and team work*:

"I am an elementary school teacher and teach six different courses. When these courses are considered separately, the content of each one is large. Do you think it is possible for us to prepare something for each one of these six courses? If I were a secondary school teacher, I would do activities for the class I taught... [I'd think] These materials are the ones I can use for a long time. But I don't have any chance to use them again in the following year ..." [YB-P1]

"We have the skills to use a computer, we have technology classes. I mean, we have enough information about using computers to get by, but [we are not in the habit of] sitting down and creating something on Photoshop or Dreamweaver for ourselves ... If I work on a subject for a week, I teach six courses ... What can I prepare and for which course?" [YB-P3]

Discussion

Although willingness of the participants is considered to be quite an important aspect for a professional development program to reach its aims (Smith, Hofer, Gillespie, Solomon & Rowe, 2003), this study concluded that teachers participating in the WBCD professional development program did so reluctantly. This result is parallel with the findings of Kuzu and Kerimgil (2008) and Uslu (2013). The reasons behind the teachers' reluctance are cited as the inappropriate timing of the course and obligatory participation. Similarly, Özoğlu (2010) and the Türk Eğitim Derneği (TED) (2009) point out that teachers participate in professional development activities because they are obliged to. In this study, teachers criticized the implementation time of the WBCD program as it was carried out simultaneously with their instruction period at school. Some researchers suggest that adult

education programs should not take place during work hours and private life is busy (Aydın, 2011; Büyüköztürk, Akbaba-Altun & Yıldırım, 2010; Uysal, 2009). The results of the study showed that the reluctance to participate in the WBCD program practices resulted from both *individual* and *professional* factors. *Individual factors* were cited as a disruption of life order, teachers' belief that it will not be useful, and inadequate prior knowledge and skills. *Professional factors* were listed as a sense of obligation, timing, and workload. In the literature, these factors are mentioned as important obstacles for adult education and teachers' professional development (Knowles, 2009; Mierzejewski, 2010; Uysal, 2009). Moreover, it is also stated that when participants' prior knowledge, interests, and needs are considered and when they believe in the benefits of professional development activities, their willingness to participate also increases (Bümen, 2009; Ertürk, 1991; Kuzu & Kerimgil, 2008; Mierzejewski, 2010; Özer, 2004; Senemoğlu, 2007; Smith et al., 2003; Tafel, 2008). Considering that willingness is an important component of motivational processes (Açıkgöz, 2003; Ferguson, 2000; Kurt, 2000), it can be said that appropriate motivation mechanisms had not been developed for the teachers' participating in the WBCD professional development program. In adult education however, motivation is a significant factor for learning (Bümen et al., 2012; Kurt, 2000). Also, high motivation levels make it easier for participants to reach their objectives (Senemoğlu, 2007; Ülgen, 1997). Therefore, organizational arrangements (such as promotion, a chance to choose schools at appointments, a relation between educational development and career progress, etc.) could be recommended, whereby teachers can see the benefits of participating in professional development programs.

Some teachers also stated that the support of their school management was not enough. However, in the related literature, organizational culture and management support are shown to be significant factors in the reflection of changes brought about by professional development programs (Bümen et al., 2012; Ertmer, 2005; Opfer & Pedder, 2011; Özer, 2004). Thus, it is suggested that managers should also participate in professional development programs designed for teachers (Guskey, 2000; Özer, 2004; Sparks & Loucks-Horsley, 2007).

In this study, it was found that teachers' prior knowledge and skill levels were not considered when determining both the objectives and the

content of the WBCD program design, which was taken as the *input*. This may cloud the applicability and functionality of a professional development program in terms of the principles being in accordance with the objectives, and the content and learner properties of the program development process (Demirel, 2007; Ertürk, 1991; Saylan, 1995; Sönmez, 2005; Tyler, 1969). Moreover, the high number of subjects included in the content, their level of difficulty, and time constraints all made it more difficult to attain the program objectives. When the content is designed in a way that is suited to learner objectives and can respond to learner, and the scope of the subjects is planned meaningfully, learning levels, permanence, and generalizability increase (Senemoğlu, 2007). It is seen in the literature that in order for professional development implementations to attain their objectives, teachers' professional development needs and interests play a significant role (Aydoğan, 2002; Bayrakçı, 2009; Bümen et al., 2012; Çiftçi, 2008; Demirkol, 2010; Özer, 2004; Özoğlu, 2010). Therefore, subjects taught in professional development activities should be suited to the real needs of the teachers (Aydoğan, 2002; Bayrakçı, 2009; Çiftçi, 2008; Demirkol, 2010; Özer, 2004; Özoğlu, 2010). Moreover, with limited prior knowledge of course content, dealing with the program in such a short time may result in the implementation of a program just for the sake of implementation. Therefore, professional development should be considered as a series of activities carried out continuously at any moment and in any area of the profession (Demirkol, 2010; Oğuzkan, 1976), rather than being activities that are done at a certain period of time. As a matter of fact, there are many studies claiming that continuous professional development programs contribute more effectively to teachers' overall development (Baldwin, 2011; Gerard, Varma, Corliss, & Linn, 2011; Smith et al., 2003). In conclusion, the findings showed that a realistic needs analysis had not been performed before designing the professional development program, that the program design was developed in a top to bottom fashion with the needs specified from outside, and not in a bottom to top style. Despite being appropriate theoretically, the WBCD program was not functional in terms of its target group and processes of practice.

It was also found in the study that trainers had made some changes to the plan of the program. Because of the incompatibility between content and timing, trainers had eliminated a part of the content and used a more simplified version. This problem comes up in many professional

development activities organized in Turkey (Aydın, 2011; Çiftçi, 2008; Demirkol, 2010; Uslu, 2013). This result shows that coordination cannot be established in the practice of the program and when considering curriculum fidelity, there are different implementation approaches of several trainers (Hewitt, 2006; Squires, 2008). Qualitative results concerning the process of the WBCD program showed that demonstration and lecturing were the two methods mainly used in learning-teaching processes. It is observed that teachers' opinions about professional development programs in Turkey are negative because these programs tend to be based on lecturing and demonstration rather than providing practical examples (Kıldan, 2008; Pasmaz, 2008). According to the TALIS report, activities that teachers reported as the most effective in Turkey are those based on research and carried out individually or in groups around a professional topic, guiding colleagues, observing and training them, and joining study visits to other schools (Büyükoztürk et al., 2010).

Another result is that the trainers are facilitators. However, the effort to adapt WBCD program to learner properties has been effective in accepting trainers as facilitators. Trainers' undertaking the role of facilitators is significant in adult education (Aydın, 2011; Knowles, 2009). Similarly, there are studies stating that trainers who work in professional development programs aiming at technology integration in Turkey are generally competent (Aydın, Çalışkan, & Ataizi, 2010; Uslu, 2013).

One of the most important outputs of the WBCD program is encouraging teachers to use computers and improving their basic computer skills. On the other hand, most teachers stated that they could not reach the level of developing web based instructional material, which was expected from them at the end of the program. It is seen that these results are contradictory with some studies that claim professional development programs contribute a lot to teachers' skills in technology use and that they have started to develop instructional materials using these skills (Cunningham, McPherson, Lawless, Brown & Zumpano, 2008; Fragkouli & Hammond, 2007). Some researchers, on the other hand, say that professional development programs on technology integration may not always reach their aims (Hixon & Buckenmeyer, 2009; Opfer & Pedder, 2011). In failing to obtain the expected objectives of the WBCD professional development program, reasons stated were insufficient time,

inappropriate plans for learners, low levels of preparation, frequent changes in the curriculum, the ease of use of existing materials, difficulty in developing materials for each class, and the perception of developing web based materials as a challenging task that requires expertise.

According to the results of the study, activities of measurement and evaluation were not carried out sufficiently in the implementation processes of the WBCD program. However, effective evaluation of learners is seen as necessary both in determining learning deficiencies and difficulties and to motivate the learners to a higher level of learning (Baykul, 2000; Bloom, Hastings & Madaus, 1971;

Ertürk, 1991; Özçelik, 2010; Turgut & Baykul, 2010; Tyler, 1969). As in the professional development program, many professional development programs carried out in Turkey are not evaluated sufficiently (Aydın, 2011; Bümen et al., 2012; Demirkol, 2010; Uslu, 2013). This situation is thought to cause professional development programs to become activities that are organized continuously but are not reflected in work and are undertaken with a feeling of obligation (Bümen et al., 2012). Also, the fact that outcomes had not been evaluated sufficiently suggests that data concerning improvements to the WBCD program cannot be reached and related feedback cannot be produced.

References/Kaynakça

- Açıköz, K. Ü. (2003). *Etkili öğrenme ve öğretme*. Ankara: Eğitim Dünyası Yayınları.
- Anderson, L. S. (1996). *K-12 technology planning at state, district, and local levels* (Report No. EDO-IR-96-07). Starkville, MS: National Center for Technology Planning, Mississippi State University. (ERIC Document Reproduction Service No. ED393448)
- Anderson, L. S. (1999). *Technology planning: It's more than computers*. National Center for Technology Planning. Retrieved from <http://www.nctp.com/articles/tpmore.pdf>.
- Aydın, C. H., Çalıřkan, H. ve Ataizi, M. (2010). *İntel öğretmen programı temel kursu: Temmuz 2009-Ağustos 2010 değerlendirme raporu*. Ankara: Intel Eğitim İnsiyatifi. http://cache-www.intel.com/cd/00/00/47/50/475064_475064.pdf adresinden edinilmiştir.
- Aydın, İ. (2011). *Kamu ve özel sektörde hizmet içi eğitim el kitabı* (1. Cilt). Ankara: Pegem Akademi.
- Aydoğın, İ. (2002). *MEB ilköğretim okulları yönetici ve öğretmenlerinin personel geliřtirmeye ilişkin görüşleri (Kayseri ili örneđi)* (Doktora tezi, Ankara Üniversitesi, Eğitim Bilimleri Enstitüsü, Ankara). <http://tez2.yok.gov.tr/> adresinden edinilmiştir.
- Baldwin, K. L. (2011). *The influence of teacher Professional development on technology integration at these condary level* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3487290)
- Bayazit, A. ve Seferođlu, S. S. (2009, Kasım). *Türkiye'deki teknoloji politikalarında eğitimin yeri ve öğretmen yetiřtirme politikaları*. TBD 26. Ulusal Biliřim Kurultayı, 12. Biliřim Teknolojileri Işığında Eğitim Kongresi'nde (BTIE'2009) sunulan bildiri, Türkiye Biliřim Derneđi, Ankara.
- Baykul, Y. (2000). *Eğitimde ve psikolojide ölçme klasik test teorisi ve uygulaması*. Ankara: ÖSYM Yayınları.
- Bayrakçı, M. (2009). In-service teacher training in Japan and Turkey: A comparative analysis of institutions and practices. *Australian Journal of Teacher Education*, 34(1), 10-22.
- Blandford, S. (2000). *Managing professional development in schools*. London: Routledge.
- Bloom, B. S., Hastings J. T., & Madaus, G. F. (1971). *Handbook on formative and summative evaluation of student learning*. New York: McGraw-Hill.
- Bümen, N. (2009). Possible effects of professional development on Turkish teachers' self-efficacy and classroom practice. *Professional Development in Education*, 35(2), 261-278.
- Bümen, N. T., Ateř, A., Çakar, E., Ural, G. ve Acar, V. (2012). Türkiye bağlamında öğretmenlerin mesleki geliřimi: Sorunlar ve öneriler. *Milli Eğitim Dergisi*, 41(194), 31-50.
- Büyükköztürk, ř., Akbaba-Altun, S. ve Yıldırım, K. (2010). *Uluslararası öğretim ve öğrenme arařtırması* [Teaching and Learning International Survey] (TALIS). Ankara. http://digim.meb.gov.tr/uaorgutler/OECD/TALIS_tr_Rapor.pdf adresinden edinilmiştir.
- Cohen, L., & Manion, L. (1990). *Research methods in education*. New York: Routledge Falmer.
- Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education* (6th ed.). London: Routledge.
- Cunningham, C. A., McPherson, S., Lawless, K. A., Brown, S. W., & Zumpano, N. (2008). Higher education institutions as partners for technology professional development. In A. Borthwick & M. Pierson (Eds.), *Professional development strategies in educational technology* (pp.146-177). Washington: International Society for Technology in Education.
- Çiftçi, E. (2008). *Türkiye'de Milli Eğitim Bakanlığı tarafından müzik öğretmenlerine verilen hizmetiçi eğitimin incelenmesi ve müzik öğretmenlerinin hizmetiçi eğitim ihtiyaçlarının belirlenmesi* (Doktora tezi, Gazi Üniversitesi, Eğitim Bilimleri Enstitüsü, Ankara). <http://tez2.yok.gov.tr/> adresinden edinilmiştir.
- Demirel, Ö. (2007). *Kuramdan uygulamaya eğitimde program geliřtirme*. (7. basım). Ankara: PegemA Yayıncılık.
- Demirkol, M. (2010). İlköğretim okullarında öğretmenlere yönelik okul-temelli hizmet içi eğitim etkinliklerinin değerlendirilmesi. *Milli Eğitim Dergisi*, 188, 158-173.
- Ertmer, P. (2005). Teacher pedagogical beliefs: The final frontier in our quest for technology integration? *Educational Technology Research and Development*, 53(4), 25-39. doi: 10.1007/bf02504683.
- Ertürk, S. (1991). *Eğitimde program geliřtirme* (6. basım). Ankara: Meteksan Yayınları.
- Ferguson, E. D. (2000). *Motivation*. New York: Oxford University Press.
- Fitzpatrick, J., Sanders, J. R., & Worthen, B. (2004). *Program evaluation: Alternative approaches and practical guidelines*. Boston: Pearson.
- Fragkouli, E., & Hammond, M. (2007). Issues in developing programmes to support teachers of philology in using information and communications technologies in Greek schools: A case study. *Journal of In-Service Education*, 33(4), 463-477.
- Gerard, L. F., Varma, K., Corliss, S. B., & Linn, M. C. (2011). Professional development for technology-enhanced inquiry science. *Review of Educational Research*, 81(3), 408-448 doi: 10.3102/0034654311415121
- Guskey, T. R. (2000). *Evaluating professional development*. Eyalet: Corwin Press. Inc. A Sage Publications Company.
- Guskey, T. R. (2002). Does it make a difference? *Educational Leadership*, 59(6), 45-51.
- Guskey, T. R. (2007). Results oriented professional development. In A. C. Ornstein, E. J. Pajak & S. B. Ornstein (Eds.), *Contemporary issues in curriculum* (pp. 334-346). Eyalet: Pearson Education Inc.
- Hewitt, T. W. (2006). *Understanding and shaping curriculum: What we teach and why*. Thousand Oaks, CA: Sage.
- Hixon, E., & Buckenmeyer, J. (2009). Revisiting technology integration in schools: Implications for professional development. *Computers in the Schools*, 26(2), 130-146.
- Kazu, İ. Y. ve Kerimil, S. (2008). Yeni atanan öğretmenlerin hizmetiçi eğitime ilişkin görüşleri (Elazığ ili örneđi). *Gazi Üniversitesi Endüstriyel Sanatlar Eğitim Fakültesi Dergisi*, 23, 14-30.
- Kellaghan, T., Stufflebeam, D. L., & Wingate, L. A. (2003). *International handbook of educational evaluation*. Dordrechts: Springer.
- Kıldan, A. O. (2008). *Yapılandırıcı yaklaşıma göre okul öncesi öğretmenlerine verilen hizmetiçi eğitimin öğretmen-çocuk ve öğretmen-ebeveyn ilişkilerine etkisi* (Doktora tezi, Gazi Üniversitesi, Eğitim Bilimleri Enstitüsü, Ankara). <http://tez2.yok.gov.tr/> adresinden edinilmiştir.
- Knowles, M. (2009). Androgoji: Yetişkinlerde öğrenme konusunda yeni bir teknoloji (Çev. S. Ayhan). A. Yıldız ve M. Uysal (Ed.), *Yetişkin eğitimi kuramdan uygulamaya içinde* (s. 127-144). İstanbul: Kalkedon Yayınları.
- Kurt, İ. (2000). *Yetişkin eğitimi*. Nobel Yayın Dağıtım, Ankara.

- LeCompte, M. D., & Goetz, J. P. (1982). Problems of reliability and validity in ethnographic research. *Review of Educational Research*, 52(1), 31-60. doi: 10.2307/1170272
- Mertens, D. (1998). *Research methods in education and psychology*. London: Sage.
- Mierzejewski, C. S. (2010). *The impact of professional development on technology integration in high school classrooms* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3393705)
- Miles, M. B., & Huberman, A. M. (1994). *An expanded source book qualitative data analysis* (2nd ed.). Thousand Oaks, CA: Sage.
- Milli Eğitim Bakanlığı. (2008). *2009 Yılı Hizmetiçi Eğitim Planı*. <http://hedb.meb.gov.tr/> adresinden edinilmiştir.
- Milli Eğitim Bakanlığı. (2012a). *Hizmetiçi Eğitim Dairesi Başkanlığı*. <http://hedb.meb.gov.tr/> adresinden edinilmiştir.
- Milli Eğitim Bakanlığı. (2012b). *Öğretmen Yetiştirme ve Geliştirme Genel Müdürlüğü-Mesleki eğitim ihtiyacını belirleme anketi genel değerlendirme sonuçları*. http://oyegm.meb.gov.tr/meb_ys_dosyalar/2012_07/26120639_anket_ithiyac_belirleme2012.pdf adresinden edinilmiştir.
- Oğuzkan, F. (1976). *Öğretmenliğin üç yönü*. Ankara: Tekişik Matbaası.
- Opfer, V. D., & Pedder, D. (2011). Conceptualizing teacher professional learning. *Review of Educational Research*, 81(3), 376-407. doi: 10.3102/0034654311413609
- Ornstein, A. C., & Hunkins, F. P. (1988). *Curriculum: Foundations, principles and issues*. Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Özcelik, D. A. (2010). *Ölçme ve değerlendirme* (4. basım). Ankara: Pegem Akademi Yayıncılık.
- Özer, B. (2004). In-service training of teachers in Turkey at the beginning of the 2000s. *Journal of In-service Education*, 30(1), 89-100.
- Özoğlu, M. (2010, Mayıs). *Hizmetiçi eğitimde sorunlar ve çözüm önerileri* (Milli Eğitim Bakanlığı'nda hizmetiçi eğitimin yeniden yapılandırılması panel ve çalıştayı). Ankara. http://hedb.meb.gov.tr/net/_duyuru_dosyalar/calistay.pdf adresinden edinilmiştir.
- Patton, M. Q. (1987). *How to use qualitative methods in evaluation*. Newbury Park, CA: Sage.
- Pusmaz, A. (2008). *Matematik öğretmenlerinin problem çözme sürecinin belirlenmesi ve bu sürecin geliştirilmesinde web tabanlı mesleki gelişim çalışmalarının değerlendirilmesi* (Doktora tezi, Marmara Üniversitesi, Eğitim Bilimleri Enstitüsü, İstanbul). <http://tez2.yok.gov.tr/> adresinden edinilmiştir.
- Rossman, R. B., & Ralliss, S. F. (1998). *Learning in the field: An introduction to qualitative research*. Thousand Oaks, CA: Sage.
- Saylan, N. (1995). *Eğitimde program tasarısı: Temeller, prensipler, kriterler*. Balikesir: Yazar.
- Senemoğlu, N. (2007). *Gelişim, öğrenme ve öğretim: Kuramdan uygulamaya*. Ankara: Gönül Yayıncılık.
- Smith, C. L., Hofer, J., Gillespie, M., Solomon, M., & Rowe, K. (2003). *How teachers change: A study of Professional development in adult education* (Report 25a). Cambridge, MA: National Center for the Study of Adult Learning and Literacy. Retrieved from <http://www.ncsall.net/fileadmin/resources/research/report25.pdf>
- Sönmez, V. (2005). *Program geliştirmede öğretmen elkitabı* (12. basım). Ankara: Anı Yayıncılık.
- Sparks, D., & Loucks-Horsley, S. (2007). Five models of staff development for teachers. In A. C. Ornstein, E. J. Pajak & S. B. Ornstein (Eds.), *Contemporary issues in curriculum* (pp. 303-326). Boston: Pearson.
- Squires, D. A. (2008). *Curriculum alignment: Research-based strategies for increasing student achievement*. Thousand Oaks, CA: Sage.
- Stufflebeam, D. L. (2000). The CIPP model for evaluation. In D. L. Stufflebeam, G. F. Madaus & T. Kellaghan (Eds.), *Evaluation models viewpoints on educational and human services evaluation second edition* (pp. 279-318). New York: Kluwer.
- Stufflebeam, D. L. (2003). The CIPP model for evaluation. *Annual Conference of the Oregon Program Evaluators Network*. Portland, Oregon: Oregon Program Evaluators Network.
- Şahinkayası, H. ve Şahinkayası, Y. (2004, Temmuz). *Okullar için öğretim teknolojisi plan (ÖTP) ve öğeleri*, XIII. Ulusal Eğitim Bilimleri Kurultayı'nda sunulan bildiri, İnönü Üniversitesi, Eğitim Fakültesi, Malatya.
- Tafel, L. S. (2008). Using adult learning theory to frame and support Professional development: What should we know? In A. Borthwick & M. Pierson (Eds.), *Transforming classroom practice: Professional development strategies in educational technology*. Washington DC: International Society for Technology in Education.
- Turgut, M. F. ve Baykul, Y. (2010). *Eğitimde ölçme ve değerlendirme*. Ankara: Pegem Akademi.
- Türk Eğitim Derneği. (2009). *Öğretmen yeterlikleri*. Ankara. http://portal.ted.org.tr/yayinlar/Ogretmen_Yeterlik_Kitap.pdf adresinden edinilmiştir.
- Tyler, R. W. (1969). *Basic principles of curriculum and instruction: Originally published as syllabus for education 360*. Chicago: University of Chicago Press.
- Uslu, Ö. (2013). Öğretmenlere yönelik mesleki gelişim programlarının değerlendirilmesinde yeni bir model önerisi [Özel Sayı]. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, 1, 359-374.
- Uysal, M. (2009). Yetişkin eğitiminde program planlama. A. Yıldız ve M. Uysal (Ed.), *Yetişkin eğitimi kuramdan uygulamaya içinde* (s.199-228). İstanbul: Kalkedon.
- Ülgen, G. (1997). *Eğitim psikolojisi*. Ankara: Alkım Yayınevi.
- Yıldırım, A. ve Şimşek, H. (2013). *Sosyal bilimlerde nitel araştırma yöntemleri*. Ankara: Seçkin Yayıncılık.
- Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Yurdakul, B. (2004). *Yapılandırmacı öğrenme yaklaşımının öğrenenlerin problem çöme becerilerine, bilişötesi farkındalık ve derse yönelik tutum düzeylerine etkisi ile öğrenme sürecine katkıları* (Doktora tezi, Hacettepe Üniversitesi, Sosyal Bilimler Enstitüsü, Ankara). <http://tez2.yok.gov.tr/> adresinden edinilmiştir.
- Yüksel, İ. ve Sağlam, M. (2012). *Eğitimde program değerlendirme*. Ankara: Pegem Akademi.