

New Approach at Evaluating the Private Schools' Curriculum: I-CODE Model

Dr. Fatih Aygören

*Balikesir University, Department of Curriculum and Instruction, Turkey
faygoren@hotmail.com*

Assoc. Prof. Dr. Kemal Oğuz Er

*Balikesir University, Department of Curriculum and Instruction, Turkey
keoguzer@gmail.com*

ABSTRACT

This research is designed to develop the I-CODE model, which is a unique approach to evaluate curricula. Basic features of the model, design process, code of practice, feasibility and functionality were investigated.

It was concluded in accordance with the first sub-objective of the study that the model has features such as having a subjectivist and utilitarian philosophy; relativist and consumerist ideology, a design which is consumer-oriented and participant-oriented; externally-directed regarding the types of evaluation; and making informal, input, process, output, impact evaluation and inspired by Goal Free, Consumer-Oriented, Responsive curriculum evaluation models.

In the design process of I-CODE model, analyses of the needs of the consumers were made through an interview and these analyses were supported by literature review and curriculum evaluation questions of the model were determined. Accordingly, icode.com.tr curriculum evaluation website belonging to I-CODE model was designed and has been put into practice as a pilot project for the evaluation of private schools. The process to develop the I-CODE model continued through feedback from the pilot project and expert perspectives.

Implementation principles of the I-CODE model have been clarified through interviews and literature review. This model is based on parents' and students' evaluation of the curricula through becoming a member of icode.com.tr website. All private schools in Turkey can be displayed on the system. The evaluation is carried out by the consumers by scoring ten questions out of ten about the school's curriculum. After each beneficiary evaluation, the score is being updated. Furthermore, the general and sub-statistics of the school's curriculum can be displayed separately and continuously.

In accordance with the second sub-objective of the research, it was concluded that this model is need-oriented, functional and useful at curriculum evaluation. The model, while being practicable from an educational point of view, needs to be sensitive to legal aspects.

KEYWORDS: I-CODE model, icode.com.tr, Curriculum Evaluation, College, Private School

INTRODUCTION

While the world is in great desire for innovation, the education world must keep pace with these rapid developments (Bobbitt, 1918: p. 9). In this regard, curricula are the leading things that need to be continuously developed. Curricula must be evaluated continuously in order to create curriculum structures that can meet needs and maintain continuity. The evaluation of curricula, the identification of their effectiveness, and hence its development is an almost instinctive effort for educational scientists since evaluating curriculum is an important feedback mechanism for improving curricula. (Lunenburg and Irby, 2006: p. 60; Belvis, 1989: p. 247) Many philosophies, ideologies, designs, evaluation types, and models have been produced in order to evaluate the curricula in this direction.

In this study, a new model is proposed which is different from the models developed in the field of curriculum evaluation. The I-CODE (Internet and Consumer Oriented Dynamic Evaluation) curriculum evaluation model developed by the researchers is the internet-based and continuous evaluation of the curricula of private schools by parents and students through the icode.com.tr website. Thus, parents and students take the lead in evaluating their curricula. The integration of the Internet, information technology and evaluation areas of curricula have the characteristics of consumers' (parents and students) roles in direction, establishing continuity and creating curriculum evaluation databases. However, the proposal of this model is accompanied by questions such as what

the I-CODE model is, what features it contains, its principles, practicality or functionality. These questions constitute the problem of research.

The purpose of this research is to develop I-CODE which is likely to be the new model in the evaluation of curricula, to test it on private schools' curricula and to question its usefulness. In response to this general objective, the following questions will be asked:

- 1) Web-based I-CODE curriculum evaluation model's:
 - i) What is the basic curriculum evaluation features?
 - ii) What is the operations in the design process?
 - iii) What is the codes of practice?
- 2) Web-based I-CODE curriculum evaluation model's:
 - i) How is the applicability in education?
 - ii) How is the functionality?

PROCEDURE

In the study, grounded theory among qualitative research methods was used since a unique model is proposed in the field of curriculum evaluation. Developing theories to explain phenomena, the theories emerging from the data rather than being prefigured or predetermined (Cohen, Manion and Morrison, 2007: p. 170). Grounded theory provides a systematic and comparative framework when constructing a theory inductively (Punch, 2000: p. 103).

Interviewing, observation and document analysis are the most commonly used data collection methods when developing theories (Yıldırım and Şimşek, 2006: p. 76). In this regard, literature review, individual interview and focus group discussion were used in the research process. Grounded theory is an iterative process, moving backward and forwards between data and theory until the theory fits the data (Cohen, Manion and Morrison, 2007: p. 185).

Grounded theory methods can be applied both to provide systematic procedures for shaping and using qualitative materials and also on quantitative data. Grounded theory has the following characteristics:

- 1) simultaneous involvement in data collection and analysis phases of research;
- 2) creation of analytic codes and categories developed from data, not from preconceived hypotheses;
- 3) the development of middle-range theories to explain behavior and processes;
- 4) memo-making, that is, writing analytic notes to explicate and fill out categories, the crucial intermediate step between coding data and writing first drafts of papers;
- 5) theoretical sampling, that is, sampling for theory construction, not for representativeness of a given population, to check and refine the analyst's emerging conceptual categories and;
- 6) delay of the literature review (Charmaz, 2005: p. 28).

Grounded theory can help to forestall the opportunistic use of theories that have dubious fit and working capacity. So often in journals we read a highly empirical study which at its conclusion has a tacked-on explanation taken from a logically deduced theory (Glaser and Strauss, 2012: p. 4). In this context, the explanations about the I-CODE model that the research attempt to find, tried to be carried out with the analyses and interpretations repeated in the research process.

Research process flowchart is shown in Figure 1.

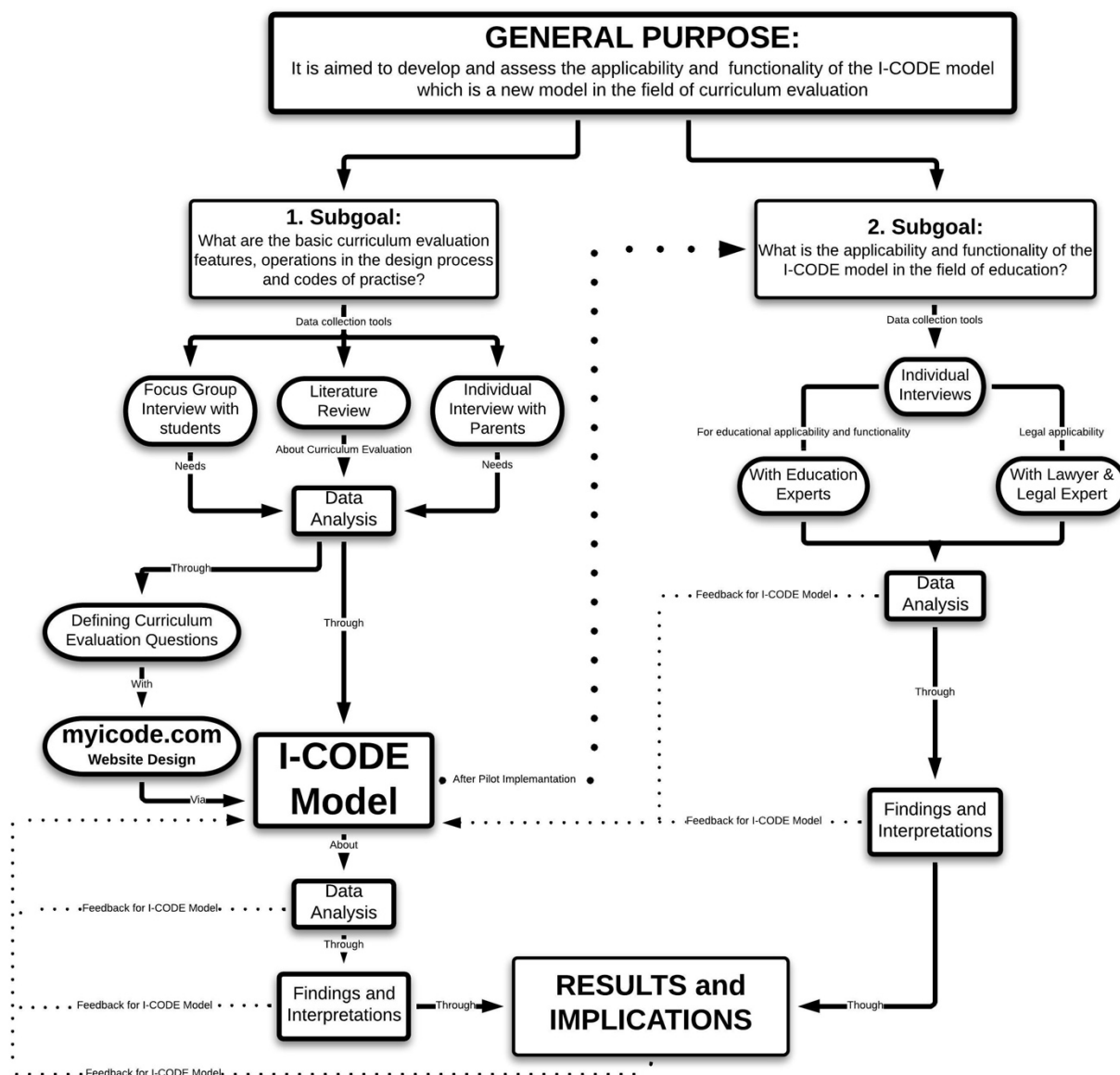


Figure 1. Research process flowchart

Collection and Evaluation of Information Related to the First Sub-Objective of the Study

Literature review and interview were used for the first sub-objective of the research. In the literature review, researchers tried to reach national and international written sources. In this respect, it is benefited from the available print and digital sources. The sources of information were examined by researchers, the concepts were tried to be understood and categorized as curriculum features.

Individual interviews with parents and focus group discussion with the students were held in research. Semi-structured interview method through interview form developed by the researcher was used in individual interviews and focus group discussion. Like the structured interview, the semi structured interview is constructed around a core of standard questions. Unlike the structured interview, however, the interviewer may expand on any question in order to explore a given response in greater depth (Mitchell and Jolley, 2010: p. 277).

With semi-structured interviews, the investigator will have a set of questions on an interview schedule but the interview will be guided by the schedule rather than be dictated by it. Here then:

- 1) There is an attempt to establish rapport with the respondent;
- 2) The ordering of questions is less important;
- 3) The interviewer is freer to probe interesting areas that arise;

The interview can follow the respondent's interests or concerns (Smith, 2005: p. 12).

The results of the interviews were coded and then interpreted in accordance with the structure of research method. Coding is a specific labeling activity that initiates data analysis and continues during the analysis (Punch, 2005/2014: p. 195).

Open coding used in grounded theory was used in the research. Open Coding includes labeling concepts, defining and developing categories based on their properties and dimensions. The purpose of open coding is to develop categories (Punch, 2000: p. 106).

In the research process, descriptive analysis was used to interpret the data after coding. In the descriptive analysis, direct quotations are frequently included to reflect the views of the individuals interviewed or observed. The purpose of such analysis is to present the findings to the reader in an organized and interpreted way. The data obtained for this purpose are first described systematically and explicitly. Afterwards, these descriptions are analyzed, interpreted, cause-effect relations are examined and some results are achieved. The association, interpretation of the emerging themes and making future prediction may also be among the researcher's comments (Yıldırım and Şimşek: 2006: p. 224).

In order to be able to prepare the interview form, a draft based on the literature review was first formed. Expert opinions were obtained for the draft form and preliminary applications were made. The experts have contributed to the structuring of the interview form, its reliability, and validity. The form is finalized and shaped after the checks and corrections.

Feedback was provided through the basic features, design process and implementation principles of the I-CODE model and I-CODE curriculum evaluation questions have been developed to be used in the model. The questions on the interview form and the process of preparation of curriculum evaluation questions developed through these interviews are shown in Figure 2.

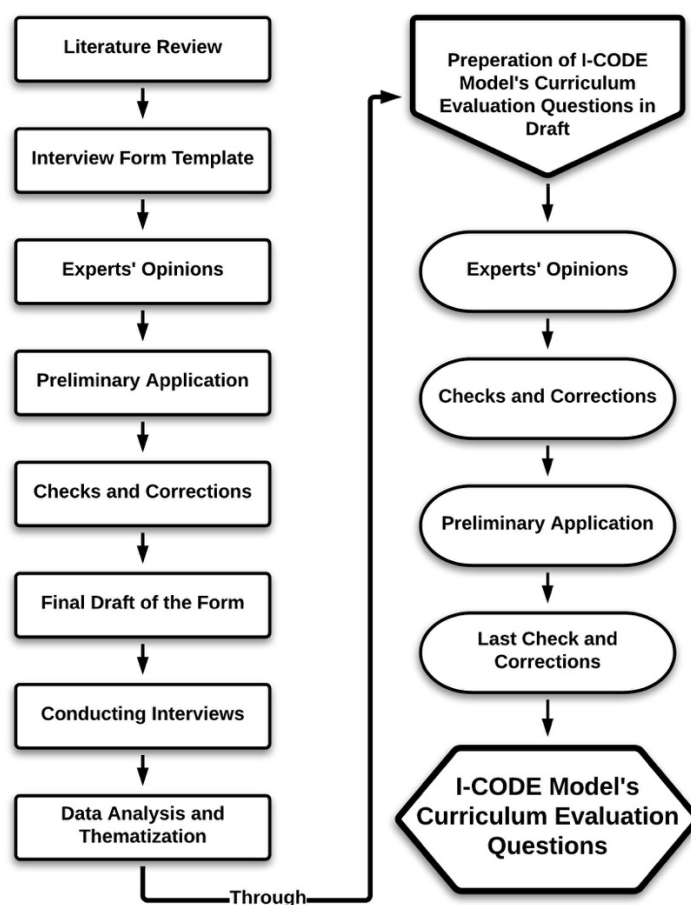


Figure 2. Interview Form and I-CODE Curriculum Evaluation Questions Preparation Process
Collection and Evaluation of Information Related to the Second Sub-Objective of the Study

Individual interviews with experts were conducted to find the answer to the question “How is the Web-based I-CODE curriculum evaluation model regarding functionality and applicability?” which the second sub-objective of the study is. A draft based on literature review was developed, expert opinion on the draft was obtained, preliminary application was made and final form was given in order to develop the interview form to be conducted. This form was used in the interview process with experts. During the research process, three specialists from the field of curriculum and a specialist from the field of information technology were interviewed. Also, an unstructured interview was held with a legal expert and a lawyer about the legal applicability of the I-CODE model.

The data obtained from the interviews were coded and interpreted in accordance with the structure of research method. In the descriptive analysis, direct quotations are frequently given to reflect the views of the interviewed or observed individuals dramatically (Yıldırım and Şimşek: 2006, p. 224). In this context, interpretations were made through giving direct quotations of experts' expressions. The findings were tried to be presented to the reader in an organized and interpreted way.

FINDINGS

Findings related to the first sub-objective of the research

Basic Characteristics of I-CODE Model

The I-CODE model is an adapted type of evaluation which has already begun to be used through developing technology and internet facilities at the field of curriculum. It is used to evaluate school's curriculum through the website. The points that parents and students gave, in other words, beneficiary scores are presented in a continuous, changeable way and it is also open to the public.

The curriculum definition, curriculum evaluation philosophies, curriculum evaluation ideologies, curriculum evaluation designs, curriculum evaluators role, curriculum evaluation format, curriculum evaluation type of the I-CODE model and models which affected the model were defined within the scope of the research. Findings about these are:

Curriculum Definition of I-CODE model

The curriculum has been redefined during the development process of ICODE model. Curriculum is all the deliberately planned circumstances that affect the learners and create experience including both internal and external school factors regarding curriculum. In this respect, I-CODE model suggests taking all experiences that affect the learning of the learners and all the circumstances that reveal these experiences into consideration while evaluating curriculum. The curriculum is accepted in its macro-scale in other words in its widest scope.

Curriculum Evaluation Philosophy of I-CODE Model

Curriculum evaluation philosophies obtained from literature review within the scope of research were defined as follows: objectivist, subjectivist, utilitarian and pluralist. The I-CODE model can be regarded as subjectivist since it is based on the subjective opinions of parents and students in other words consumers. The subjective point of view argues that this point of view consists of subjectivity and experiential practice rather than scientific method (Lawrenz and Thao, 2014: p. 760).

Furthermore, evaluation is made by consumers; thus, results from the evaluation directly provide feedback to consumers and to the individual interested. In this sense, it can be said that the I-CODE model is in accordance with the utilitarian philosophy. The primary aim of the utilitarian philosophy is to work for the benefit of the whole community and to maximize satisfaction.

Curriculum Evaluation Ideology of I-CODE Model

Within the scope of research, curriculum evaluation ideologies were defined through literature review as follows: separatist, positivist, managerial, relativistic and consumerist. The I-CODE model can be regarded as particularly close to these ideologies relativistic and consumerist. Scriven attaches much importance to subjectivity rather than objectivity as opposed to relativistic and positivist ideologies (Stufflebeam and Coryn, 2014: p. 361). Within the scope of the curriculum evaluation logic of the I-CODE model, subjectivity is prioritized rather than objectivity. Parents' and students' subjective judgments about the school's curriculum can give insight into the effectiveness of the curriculum. In addition, the I-CODE model provides appropriate options for consumers to participate in the evaluation process. Consumerist ideology is the involvement of affected individuals in the evaluation process (Scriven, 1993: p. 249).

Evaluation is made for consumers. In this context, it can be said that the I-CODE curriculum evaluation model is in accordance with the basic logic of consumerist ideology.

Curriculum Evaluation Design of I-CODE Model

In the scope of the research through literature review, six curriculum evaluation designs were determined. These evaluation designs are as follows: objectives-oriented, management-oriented, consumer-oriented, expertize-oriented, adversary-oriented and participant-oriented. The I-CODE model can be evaluated within the scope of consumer-oriented and participant-oriented designs. In the consumer-oriented design, curricula are evaluated for the consumers. Information about the quality of the curriculum or service is given openly. Summary evaluation logic is used (Yüksel and Sağlam, 2014: p. 71). In the I-CODE evaluation method, the information gathered from the parents and students is analyzed and presented back to them through the website. Consumers may benefit from the evaluation results when choosing a school or developing a curriculum. In this context, the application process falls into the consumer-oriented design category; moreover, the I-CODE model has also participant-oriented design feature. Participatory curriculum evaluation is based on the involvement of the stakeholders in the process of determining the effectiveness of the curriculum. Instead of evaluating the curriculum on its own, the curriculum includes shareholders in the process. Likewise, in the I-CODE model, the evaluation process is carried out directly with the parents and the students. In this regard, the I-CODE model can be considered within the context of participant-oriented evaluation.

Curriculum Evaluator Role at I-CODE Model

Evaluation of the curriculum according to the evaluator role is done in three ways consisting of internal, external and externally-directed. The I-CODE model can be considered as an externally-oriented evaluation in terms of the evaluator's role. Externally-directed evaluation is a kind of evaluation in which the evaluation process is largely done by external auditors with the help of people in the organizational structure (Thomas, 2010: p. 416). In the I-CODE model, what information will be collected during the curriculum evaluation process, what types of data sets and in which quality these data sets will be, data analysis, data collection tools, what dimensions will be assessed in the evaluation process and how the evaluation results will be presented are determined by the researcher. In other words, the researcher, who is from outside the organization, helps with the technical issues required. However, the role of evaluation is given to consumers within the education organization, that is to say, judgments about the organization are obtained directly from the consumers. In the I-CODE model, the evaluation is made by the consumers, namely parents and students within the school organization through the website designed by the researcher who is the curriculum development expert and the I-CODE curriculum evaluation questions. In this regard, the evaluation made within the scope of the I-CODE model can be said that it is in accordance with externally-directed evaluation.

Curriculum Evaluation Form of I-CODE Model

Curriculum evaluation can be said formal, informal and blended evaluation according to its form. The I-CODE model uses the concept of informal evaluation in the curriculum evaluation process. Informal evaluation is a kind of evaluation using variables and tools such as interviews with individual or group, observation and questionnaire (Dessinger and Moseley, 2004: p. 83). Since the evaluation questions are developed and applied by taking the opinions of the consumers and experts, it can be said that it is in line with informal evaluation.

Evaluation Type of I-CODE Model According to System Dimensions

Curriculum evaluation can be expressed in four dimensions as input, process, output and impact dimensions when the curriculum is accepted as a system. In this regard, the I-CODE model more or less consists of all of the input, process, output and impact evaluation dimensions.

Input evaluation can be expressed as the dimension that can be used to analyze the needs of the curriculum for the people concerned. The input evaluation is largely related to the needs analysis (Guerra-Lopez, 2008: p. 109). It can provide suggestions for the needs of curricula or institutions. Input evaluation can recommend a better alternative if there is a non-satisfied application on the basis of literature review (Stufflebeam, 2003: p. 45-46). The I-CODE model can provide useful information about the inputs of curricula. They can provide comparable information about schools' curriculum. Institution managers can use the I-CODE model as a needs analysis system. The beneficiary groups are able to make a choice from the I-CODE system when logging in the school system. In this sense, I-CODE model is in concordance with input evaluation.

The objective of the process evaluation is to display the performance (Guerra-Lopez, 2008: p. 109). The process evaluation enables to decide the degree of the curriculum reaches the target group, the satisfaction of the curriculum, the curriculum activities or elements applied, the quality of the equipment (Girgis, 1998: p. 110). I-CODE model can be said to reveal the degree of meeting the needs of the target groups and satisfaction of the

curriculum through the evaluations of parents and students. It can also be said that I-CODE model can provide information to curriculum specialist, relevant institutions such as the ministry of education and institution owners and also to consumers about the effectiveness and qualifications of the curriculum being implemented. In this context, I-CODE model can be regarded as suitable for process evaluation.

Output evaluation is a kind of evaluation focuses on the long-term effects of the curriculum (Girgis, 1998: p. 110). It provides feedback for the development or abandonment of the evaluated system (Guerra-Lopez, 2008: p. 109). The I-CODE model has a structure that is evaluated and measured by the consumers of the curriculum. There is no time limit for evaluations. The evaluation results are renewed on each new evaluation. In the long run all the results are kept ready to be shown to the interested person. Long-term evaluation results of schools or educational institutions can be viewed through the website. In this respect, it can be said that the I-CODE model is in accordance with the output evaluation.

Impact evaluation is a kind of evaluation focuses on short-term effects of the curriculum (Girgis, 1998: p. 110). Impact evaluation is concerned with which goals of the curriculum are met. Some people call this evaluation type as short and medium-term outputs (Baker and Goodman, 2003: p. 185-186). The I-CODE model is designed to allow parents and students, ie, consumers, to make instant and ongoing evaluations over the website. Thanks to the Internet and technological facilities, the extent to which the needs of the consumers are met can be shown in the short term. Curriculum specialist and people relevant to, can display the effects of curricula without any waiting and with continuous analysis. In this regard, the I-CODE model can be considered as evaluating the impact dimension of the system, since the short and medium-term effects are immediately reflected.

The basic principles and prominent features of the I-CODE curriculum evaluation model can be seen in Figure 3 as a summary.

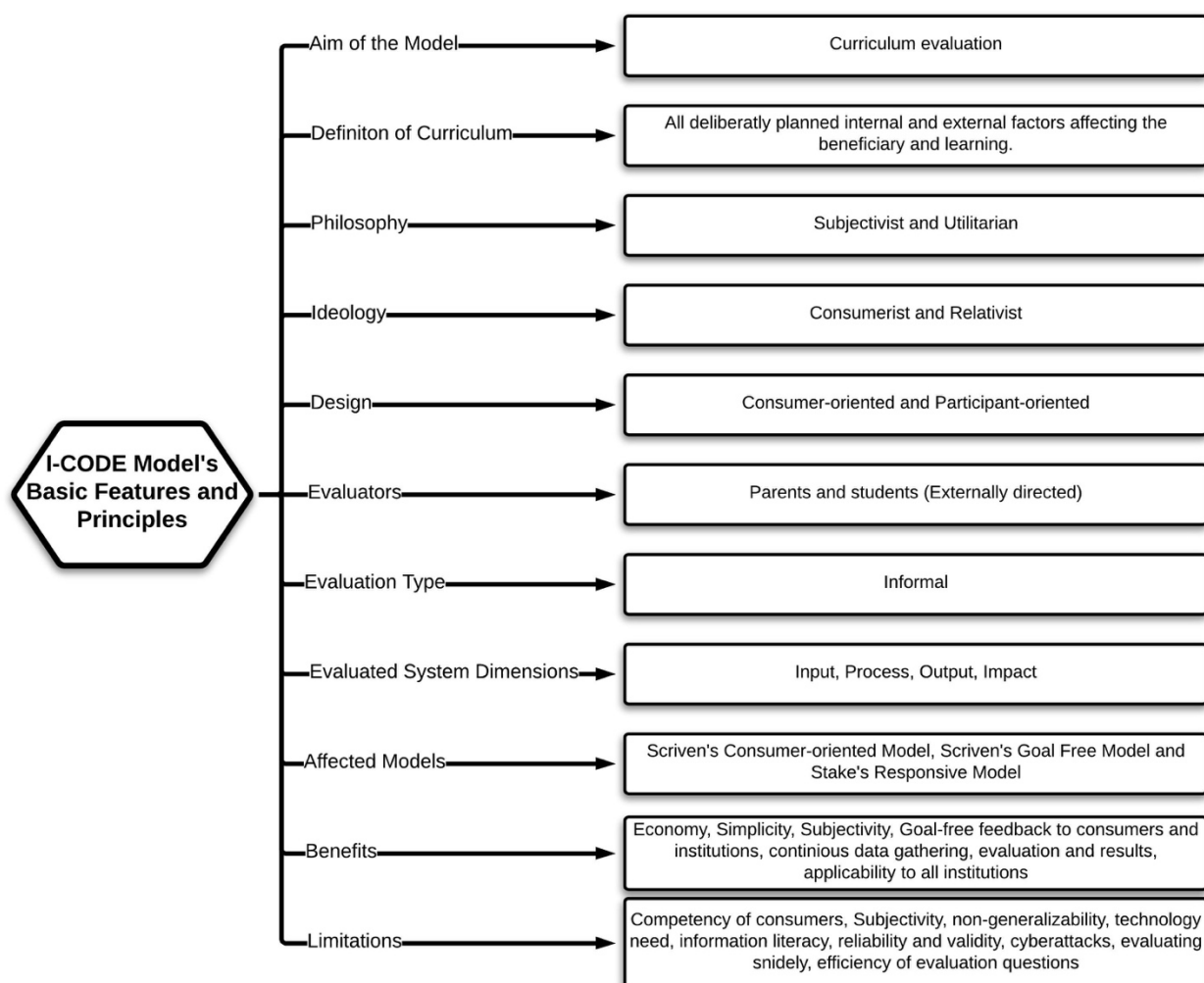


Figure 3. Basic Features of I-CODE Model

Design Process of I-CODE Model

The starting point of I-CODE model and the preparation of the process of the website was carried out in parallel with the preparation of the evaluation questions process. In the design process of the I-CODE model, curricula and literature review on the evaluation of curricula, interviews conducted with the consumers, namely parents and students have played a role in shaping the model. In addition, expert interviews within the scope of the second objective of the research in which the applicability and functionality questioned has given feedback on the design of the model.

Literature review, the opinions of the consumers, curriculum evaluation questions are used in order to demonstrate the basic features of the I-CODE model. The interviews which have a great role in the structure of the model, in the development process and in finding the evaluation questions to be used on the site were thematized and the evaluation questions were structured on these themes.

In the process of thematization for the questions to be used during the curriculum evaluation, three main themes have emerged as follows: quality of education and training, organizational/institutional quality, quality of physical conditions. These three main themes are divided into ten sub-themes. In addition to the evaluation questions on this main theme and sub-themes, in which dimension the analyze results of the curricula will be presented on the website were revealed.

THEMES

The main themes and sub-themes obtained are shown in Figure 4.

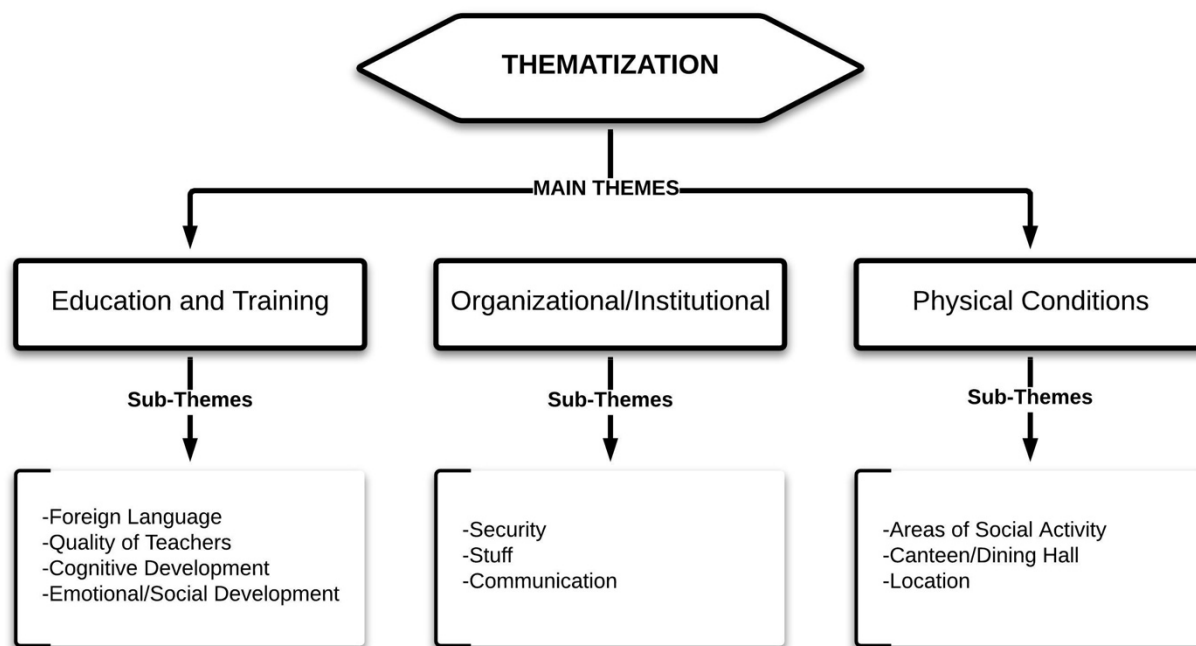


Figure 4. Themes obtained from interviews

These themes also reflect the expectation of parents and students from private schools. Analyses made can also be seen as needs analysis for private schools or colleges.

Education and Training (Main Theme)

As a result of the interviews conducted with parents and students, foreign language, emotional/social development and teacher quality are seen as the sub-themes within the scope of the education and training. Interviews conducted with consumers have revealed that especially foreign language is considered important which is one of the sub-theme and this has attracted researcher's attention. It can also be said that the quality of the teacher is considered important as well as the foreign language, the socialization of the students and the emotional development of the students are also clearly expected. It can be said that cognitive development is also considered important but putting other sub-themes forefront rather than cognitive development has also caught the researchers' attention.

Foreign Language (Sub-theme)

It is seen that details such as foreign language pronunciation, speaking, understanding, reading and translation are frequently expressed in the opinions of parents and students regarding the foreign language which is in the forefront of the interviews. Some of the views of parents and students are as follows:

Parent (Kindergarten): They teach vocabulary with songs. There is no point. It was a show thing. It was simply for ornament. 02.03.2015

Parent (Primary School): I chose this school for foreign language. I think this is the only difference between private schools and public schools. 28.02.2015

Parent (Secondary School): Children can understand but cannot speak. There should be more conversation lessons. 02.03.2015

Student (Secondary School): I also want French and Chinese classes. 26.02.2015

Student (High School): I think English is not a problem, but they are not good at teaching the third language. Not good at all... 26.02.2015

As a result of the individual interviews with the parents, the focus group interviews made with the students the results shown above were obtained. Thanks to the data and quotations, it is noticed that foreign language teaching is considered important in private school curricula. It can be said that this expectation is due to the fact that foreign language courses cannot be given at the desired level in public schools, but much more foreign language course hours are given in private schools. Owing to realize this difference, parents and students may tend to choose private schools and have great expectations.

Teacher (Sub-theme)

It is seen that parents and students are very eager to talk about the teachers in the research process and they attach great importance to this dimension. It can also be said that they have expectations about having comprehensive knowledge of the field, teaching skills, general knowledge, experiences, characters, the ability to provide authority, and the stability that the school provides in its staff. Some of the opinions about teachers which is considered important by both parents and students, are as follows:

Parent (Kindergarten): We sent our kid to this school just because of this teacher. She started to work in a public school in the second semester. 02.03.2015

Parent (Primary School): Nobody wants teacher difference during the academic year. 28.02.2014

Parent (Secondary School): They are young, inexperienced, unable to provide authority in private schools. 02.03.2015

Parent (Secondary School): English teacher has changed. 28.02.2015

Parent (High School): I expect that the quality and competencies of the teachers are high. But at least I expect it to be different from a public school. 02.03.2015

Student (Primary School): We had Kenan Teacher in the first grade. He left. I wish he had taught us again. 26.02.2015

Student (Secondary School): I want our teacher to be very knowledgeable. He is already very knowledgeable. 26.02.2015

Student (Secondary School): I want my teacher to teach smilingly. 26.02.2015

Student (High school): Young teachers cannot provide much authority and discriminate students. Especially the ladies... 26.02.2015

As a result of the individual interviews with parents and focus group interviews made with the students, it can be said that the teacher dimension is considered to be very important within the scope of the curriculum. Experience and quality of the teachers, the stability of the staff seem to be taken care of by the consumers. In this regard, it can be said that the dimension of the teacher in private schools is very important in terms of the success of the curriculum.

Emotional Development (Sub-theme)

The contribution made by the private school to the emotional and social development of the students is considered important within the scope of the main theme of education and training. It is seen that the

development of self-confidence, personal development, respect, tolerance and positive attitudes are among the spoken details. Opinions of some parents and students in this regard are as follows:

Parent (Kindergarten): I want my kid to be happy. I want him to go to school willingly. I don't want to force. 02.03.2015

Parent (Elementary School): I thought more about self-confidence. They give more importance to it in such places... They motivate the students even when they do just a little thing. 28.02.2015

Parent (High School): Self-esteem, emotional development, foreign language... Other schools are focusing on the things except these... 02.03.2015

Student (Primary School): I think the most beautiful things happen in social activities. 26.02.2015

Student (Secondary School): I think that the best things are social activities. I enjoy with them. 26.02.2015

Student (Secondary School): The school gives great support in terms of achievement, discipline. Apart from these, having fun is also important for us. 26.02.2015

As a result of the individual and focus group interviews, it is seen that emotional developments including self-confidence development, personal development and teaching positive attitudes such as respect and tolerance are considered important by consumers. This can be regarded as the result of the change from cognitive learning based on traditional, essentialist or realistic logic for many years to student-centered, pragmatic, progressivist and constructivist education. It can be said that the current education approaches to this direction have led the consumers to realize the importance of education in this direction.

Mental/Cognitive Development (Sub Theme)

Giving much importance to foreign language and social/emotional development rather than mental/cognitive Development has attracted researcher's attention. Opinions of some parents and students in this regard are as follows:

Parent (Kindergarten): I don't have any expectation from the school regarding mental development. 02.03.2015

Parent (Primary School): It is good in terms of success. I find what I'm looking for. But I feel like they are saying good things about each child... 28.02.2015

Parent (Secondary School): I would like academic discipline. I would not accept the assignment that my child did. 02.03.2015

Parent (High School): I do not think it is very different from the public school. 02.03.2015

Student (Secondary School): Teachers are more interested in private school than public school. 26.02.2015

Student (High School): Teachers always answer our questions. I could not get into the teachers' room when I was in public school. We can study with the teacher individually here. 26.02.2015

The sub-theme of mental development was obtained from the focus group interviews made with students and individual interviews made with the parents. Mental learning has been mentioned in the interviews as the tendency of the Turkish educational system has adopted the realistic and essentialist logic until 2005.

What is interesting is that this dimension was not spoken much. Even though the consumers mentioned about mental/cognitive development just because of the questions asked in the interview, their focus was much more on emotional dimension. This can be interpreted as an effect of the changing educational philosophies of curricula in 2005. Parents and students may have realized the importance of emotional development as much as –or perhaps even more- the knowledge in real life or mental development.

Organizational/Institutional (Main Theme)

It is seen that; the especially the security dimension has been foregrounded by the parents and students within the scope of organizational/institutional main theme. Besides, there are some remarkable expressions including individual and realistic communication and quality of staff. The sub-themes deepened within this main theme are as follows.

Security (Sub-theme)

It is seen that; the security dimension has been foregrounded by the parents and students within the scope of organizational/institutional main theme. There are some ideas that have been foregrounded including school entrance security, being ready for emergency situations and providing health service when there is a problem. Opinions of some parents and students in this regard are as follows:

Parent (Kindergarten): I find what I expect from the private school. 02.03.2015

Parent (Primary School): No private vehicle should be taken to the school garden. I can go in and out comfortably, for example. 28.02.2015

Parent (Secondary School): Satisfactory. Strangers are not taken to school. They are calling when there is a problem. You cannot get into the school freely. 02.03.2015

Parent (High School): The reason I chose a private school is security. They must be awake. They must take care of who is coming to school. 02.03.2015

Student (Secondary School): There are cameras. There is security staff. We are also conducting drills. 26.02.2015

Student (High School): They do not allow me to leave. But I once ran away from the door. 26.02.2015

In the light of the above-cited quotations, it can be said that the security dimension in private schools is remarkably important. It has been noticed that the parents especially emphasize this issue and this affects the way the parents choose a school. It can be argued that this is the result of the security weaknesses in some public schools which scare the consumers.

Staff (Sub Theme)

It is seen that the staff dimension has been foregrounded by the parents and students within the scope of organizational/institutional main theme. Some of the views on staff such as managers, psychologists, counselors, security staff, secretaries, health workers, and servants as well as teachers are as follows:

Parent (Kindergarten): They must have love towards children. They also need to have clean criminal record. 02.03.2015

Parent (Elementary School): The staff must pay attention to hygiene. 28.02.2015

Parent (secondary School): They need to know all the students. For example, the staff knows me. 02.03.2015

Parent (High School): I expect a certain corporate culture. Everyone needs to do what is expected from them. I expect better quality. 02.03.2015

Student (Primary School): They do not give food when we want to. They give it to the first and second graders. 26.02.2015

Student (Secondary School): They were yelling at the public school saying "I just cleaned this place." There is no such thing here. 26.02.2015

Student (High School): We call the staff by their name. There is sincerity and also respect between us... 26.02.2015

It can be said that the staff except teachers is another dimension which is considered important by consumers according to the result obtained from individual interviews with parents and focus group discussion with students. It can be deduced that the expectation of the staff quality of the consumers is seen only as an intramural planned event.

Communication (Sub-theme)

It is seen that the communication dimension is also considered important by the parents and students within the scope of organizational/institutional main theme. In particular, it seems that informing students and parents in a timely manner, getting involved with the problems personally, efficient parent meetings or individual meetings are also considered important. Opinions of some parents and students in this regard are as follows:

Parent (Kindergarten): If there is a health problem or if they are unhappy, they should call immediately 02.03.2015

Parent (Primary School): Parent meeting must be done individually. It's usually done for advertising or for show purposes. 28.02.2015

Parent (Secondary School): When I say something, I must take immediate reaction from the school. 02.03.2015

Parent (High School): Consulting is made superficially, like a mission to fulfill. It's not like coaching. 02.03.2015

Student (Secondary School): Parent meetings are okay... It would be nice if there were such things as breakfast. We would be with our friends. 26.02.2015

Student (High School): They're meeting with our parents one by one. It's not a mess. 26.02.2015

It can be deduced that the dimension of communication is considered important by consumers. Parents' meetings and getting in touch to inform about coaching system are especially considered important by consumers. In the light of the findings, it can be said that the communication is thought to have a vital role in success of curriculum. Paying attention to communication can be considered as an important detail for success of the curriculum.

Physical Conditions (Main Theme)

Within the scope of physical conditions main theme, the sub-themes such as areas of social activity, and location of school and canteen were obtained from the interviews. Details of these sub-themes are described below.

Canteen/Dining Hall (Sub Theme)

Within the scope of the main theme of physical conditions, parents and students have expressed that there should be a variety of food, providing healthy, quality products, organizing canteen comfortable for students. Opinions of some parents and students in this regard are as follows:

Parent (Kindergarten): They shouldn't give any food that I don't want him to eat at home. 02.03.2015

Parent (Primary School): I care about feeding my kid regularly. They should not use cheap stuff... 28.02.2015

Parent (Middle School): They give things that kids can eat easily. Pasta, potatoes, meatballs... 02.03.2015

Parent (High School): I think it is important to have a healthy diet. I expect my child to be fed to meet his daily needs rather than giving pasta or hamburger continuously. 02.03.2015

Parent (High School): The reason why I chose a private school is food. I did not send him to the Anatolian High school (public school) because there was no cafeteria, everyone was going out to eat. 02.03.2015

Student (Primary School): The canteen's rent is a bit high. So my sister said that's why they are selling food expensively. 26.02.2015

Student (Secondary School): The thing which is 25 piastre at a supermarket is 1 TL here. It needs to be decreased. 26.02.2015

Student (High School): They do not give extra food when we want to but they give it to the first and second graders. 26.02.2015

Student (High School): I am not pleased with the canteen. The teachers are also complaining about it. They are always saying the rent is high. They even sell Didi (a kind of beverage) to 3 TL. 26.02.2015

In the light of the above-cited quotations, it can be said that the canteen and dining hall in private schools is seen remarkably important. The parents not only expect private schools to meet students' education needs but also their physiological needs. Thus, seeing canteen and dining hall important might be the result of these expectations.

Areas of Social Activity (Sub-theme)

Areas of social activity is another sub-theme of physical conditions. In this sub-theme, the parents and students express the desire of the classrooms to be useful and they also want extra areas of social activities such as swimming pool, ice rink, library, laboratory. Opinions of some parents and students in this regard are as follows:

Parent (Kindergarten): I don't want any insecureness. It should be a place where they can mingle with soil 02.03.2015

Parent (Primary School): They are not doing exactly what they promised in social activities. The ice rink was used once a year. I chose this school just because of these. 28.02.2015

Parent (Secondary School): It is important to have social activity areas other than school; swimming pool, tennis courts, basketball court...02.03.2015

Parent (High School): There shouldn't be any superficial structures. The structures should be ergonomic and, in a way, that the students quit in danger. For example, there are almost no emergency signs. 02.03.2015

Student (Primary School): Activities must be open to everyone. 26.02.2015

Student (Secondary School): There are more activities for boys. 26.02.2015

Student (High School): This school is in trouble during the hot months... One-fourth of the windows can be opened. It is airless. It looks nice from the outside. It is like a hotel but the inside is not... 26.02.2015

Student (High School): I think there should be at least one swimming pool. It should not be just for kids. 26.02.2015

Student (High School): Public schools also have basketball court and football pitch. 26.02.2015

Student (High School): They give great importance to basketball in private schools. Most of the private schools are like this. 26.02.2015

The above-mentioned data are obtained from the interviews made with parents and focus group discussion made with students. In the light of these data and quotations, it can be said that the school building and the social activity areas are considered very important in private school curricula. The reason why the curricula of private schools are considered so important is the expectations of a diversity of social activities that public schools cannot offer.

Location (Sub Theme)

Within the scope of the main theme of physical conditions, expressions such as the location of school which is far away from urban stress but easy to access have attracted the researchers' attention. In addition, there also expressions including closeness to both decent and natural living environment. Opinions of some parents and students in this regard are as follows:

Parent (Kindergarten): It's good to be away from the city. There shouldn't be a traffic jam. 02.03.2015

Parent (Primary school): It shouldn't be far away from the city. It should be close to the railway, highway. 28.02.2015

Parent (Secondary School): It is important for the area to look better because my child is watching around as he comes to the school. The neighborhood is important. 02.03.2015

Parent (High School): It should be easy to access. It should also be close to natural environment. It must be far away from the urban stress and the factors that can distract them. 02.03.2015

Student (Primary School): I am not satisfied with my school bus. Other services draw up at the supermarket but ours does not. 26.02.2015

Student (Secondary School): They do not want us to fasten seatbelts. Little ones are fastening. Big guys do not. They usually stand. 26.02.2015

Student (High School): I am coming to school with public transportation. The bus draws up just in front of the school. It's very good. Sometimes you have to wait in the evening. Sometimes the teachers are taking me to home by car. 26.02.2015

As a result of the data obtained from the interviews, it is seen that consumers attach importance to the location of the schools. It can also be said that consumers expect schools to be far away from the urban stress and they also expect high-quality transportation service. This expectation can be interpreted as taking into account the problems created by the growing population and urbanization. Consumers also establish a relationship between the quality of a school and how much the school meets their expectations. The main and sub-themes were obtained from the interviews conducted to clarify the needs of parents and students and reveal the evaluation questions of I-CODE model. The I-CODE model was shaped by these main and sub-themes. The themes obtained from the interviews directly or indirectly affect the basic features of the model, the design process, and the implementation principles. Curriculum evaluation questions from the themes, and significant conclusions in the design process and implementation principles of the model were obtained.

Design Process of the I-CODE Model's Website

Within the scope of the first sub-objective of the study, the design process of the I-CODE curriculum evaluation model was carried out in parallel with the preparation of evaluation questions. As the research process was proposed as a new model development, any finding of other research questions of the research contributed to the design of the model. Each step of the research is carried out in the form of intermingling process in accordance with the grounded theory.

The design logic of the model starts with the determination of the needs of the consumers through interviews and literature review analysis. Briefly, presenting questions based on the needs of the consumers to the consumers via www.icode.com.tr and analyzing the answers via the website are the basis of this model. For this reason, the design process of the model has been carried out together with the design of the website. The website preparation process following the needs analysis of the consumers is shown in Figure 5 below.

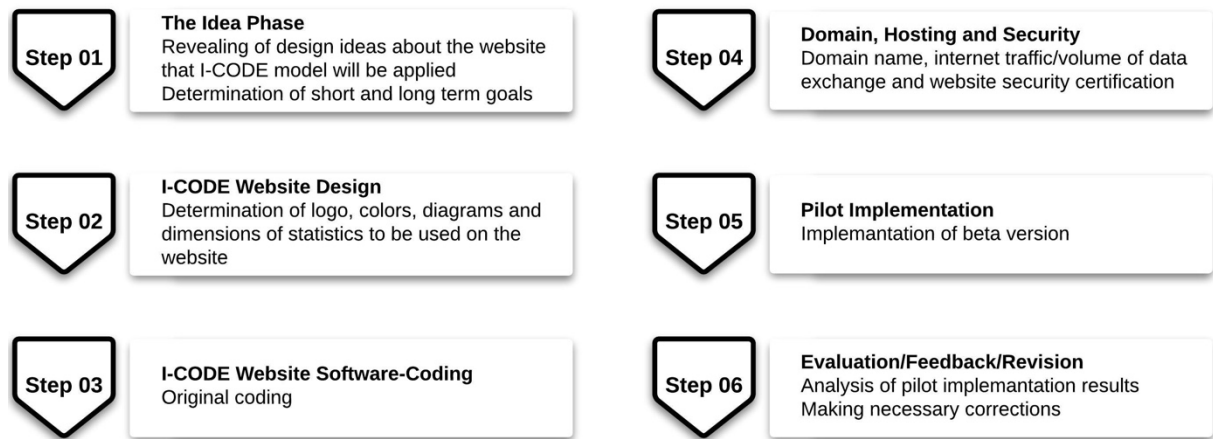


Figure 5. I-CODE Website Design Process

The Idea Phase

The I-CODE model is an internet-based curriculum evaluation approach. It is intended that model website have the following features:

- The curriculum evaluation specialist organizes the system and site interface.
- Evaluation is done by the members through scoring the I-CODE curriculum evaluation questions developed by the researcher.
- The I-CODE curriculum evaluation questions are prepared to address the needs of the consumers based on the needs analysis.
- The I-CODE curriculum evaluation questions use graded scoring keys which are based on giving points between one to ten for ten questions.
- Results are immediately and consistently updated.
- Membership is a must for evaluation.
- The new evaluation of a consumer (parent or student) is taking place in the old ones.
- Up to 5 members of the same IP are allowed to evaluate.
- A fast, simple, high-clarity interface is intended.
- I-CODE scores are not prioritized statistically without thirty voting for a school's curriculum.

I-CODE Website Design

The website design is done by researcher Fatih Aygören and software developer Tarcan Cantürk. Logo design, color selection, emphasis, symmetrical balance are done. Illustrator cc program of Adobe company was used in the design process. After the design process, Dreamweaver program of Adobe company was used again for html5 and css3 coding. With Html and css3, responsive (the responsive expression mentioned here has a different meaning than the definition in the field of evaluation) that is, designs suitable for mobile devices have been produced. The design process of the internet site lasted about three months.

I-CODE Website Software-Coding

The phpscript language is used in the encoding process for creating the software of the I-CODE model website. In the database creation section, the Mysql database is used. Search engine optimization (SEO) is being implemented so that users can easily access the website and get to the forefront of search engines on the Internet. The part of the software and coding process up to the pilot implementation lasted about a month.

Domain, Hosting and Security

The I-CODE model is an Internet-based curriculum evaluation concept, so there is a 'domain' on the Internet, ie the Internet address. Domain is an organization area such as .com, .edu, .fr on the Internet (Sankur, 2008: p. 233). A simpler definition, it is the contact address of a networked computer on the Internet (Docaıw, 2001: p. 82). The domain of the I-CODE model, ie the address on the Internet, is www.icode.com.tr. Since the website

can be opened after the patent is obtained, myicode.com website was used first, then icode.com.tr is started to be used. Those who log in to myicode.com can use the system in the same way by being directed to icode.com.tr site. Domains were purchased from service providing company on 04.11.2014 for 10 years. Service company that provides web hosting services was used for the storage and publishing of pages, images, files to be displayed on I-CODE model website. Web hosting is a service that contains necessary data and programs which allow users to access through their own computers, network or modem (Docaıw, 2001: p. 134). The hardware server features of the hosting service include 10% CPU power, 128 MB RAM, unlimited web space, unlimited traffic, unlimited MySQL and Linux operating system.

The website of the model is designed to serve as a database for the curriculum evaluation. It is crucial that this database is reliable, that keep profile information of the users and institutions' curriculum evaluation data and results private. It needs to be protected from security flaw on the internet. For this reason, a security certificate, ie SSL service, is obtained from the service provider that provides the security service. SSL is used as an abbreviation for Secure Sockets Layer, which means creating a secure login layer on the Internet. The security certificate features to be used on the I-CODE website are ComodoPositive SSL, 2048-bit SSL certificate. Thus, it is aimed to create a more powerful security wall against a cyber-attack more than a normal website.

Pilot Implementation

Beta version of website to be used in pilot implementation has been made ready on 29.06.2015 in order to implement I-CODE model; determining the main ideas and aims (step 1), design of I-CODE website (Step 2), completion of coding and software of I-CODE website (step 3), completion of domain, hosting and security services. Pilot implementation was made between 30.06.2015-18.08.2015. Approximately two and a half months' application (Beta version) was followed by the final step, feedback was received, revisions were made where necessary. This feedback, pilot implementation evaluations, and revisions are explained in the next section.

Evaluation / Feedback / Revision

Some of the details that are noticed and revised during the pilot implementation of the model's website are:

- Expressions that are difficult to understand by consumers have been changed.
- The shape and color of the links / buttons that need to be clicked by the consumers have been improved.
- Automatic redirection of consumers registered to the system to the required web pages has been improved.
- Member registration difficulties have been eliminated.
- The problem that the consumers making the evaluation do not reflect on the time when they make a new evaluation has been corrected.
- It has been noted that schools in other words the administrators may be given feedback via e-mail.
- The site does not accept English characters in its own search engine, and therefore the problem of missing sought schools has been resolved.
- Design changes have been made so that the site's homepage interface can be better understood by the consumers and improved.

The system experienced a slowdown due to the hosting of 6164 private school system databases and accumulation of statistics. In order to prevent this, hosting has been upgraded and the problem has been solved.

Implementation Principles of I-CODE Model

The following principles should be considered for the implementation of the I-CODE model:

1. The curriculum is considered in an integrative and macro scale way.
2. The consumers decide on the quality and effectiveness of the curriculum.
3. Evaluation is carried out through the website.
4. Membership is a must to evaluate.
5. Being a parent or student is a must for being a member.
6. Member's name, surname, gender, education status, e-mail address and a password that they will determine to the students; name, surname, gender, age, education status, e-mail address and the password they will determine to the parents are asked.

7. Once the consumers have found their schools on the system, they evaluate the I-CODE curriculum with model's evaluation questions.
8. Evaluation is conducted on a graded scale that ten questions can be graded up to ten points.
9. Upon completion of the evaluation, a general I-CODE score out of ten on school's curriculum will be generated.
10. Apart from the general I-CODE score, sub-dimensions of the school's curriculum are also shown statistically.
11. Evaluation results are also shown under three main themes (educational quality, organizational quality, and physical conditions quality).
12. The evaluation results based on ten sub-themes (foreign language, emotional / social development, teacher quality, mental development, security, staff, communication, areas of social activities, location and canteen/ dining hall services) are also shown.
13. The results of the evaluations made are shown in terms of gender with different evaluation dimensions (male parent, female parent, male student, female student).
14. Evaluation results are shown by age groups of the parents.
15. The results are also shown according to the educational status of the consumers (parents and students).
16. The monthly score distribution of the evaluation results is shown on the diagram.
17. Results are updated instantly and continuously by the website.
18. Consumers have the right to assign one value to the school's curriculum. If the evaluation process is repeated with a different value for the same school, the score of the previous evaluation is deleted by the system and a new value is assigned.
19. Members have the right to evaluate different schools (circumstances such as transfer or having nursery school, primary school, high school in different schools are taken into considerations).
20. The consumers have the right to evaluate two school curricula at the same level (circumstances such as transfer or having nursery school, primary school, high school in different schools are taken into considerations). The system will reject the request of a third school to evaluate the curriculum.
21. There is IP restriction in the evaluation process. After five consecutive memberships to be made from the same IP, system limitations become active.
22. The evaluation of the beneficiary, who issues the same values for the ten curriculum evaluation questions in the evaluation process, will be deemed invalid by the system (for example, all one or ten given cases).
23. The consumers who are members can evaluate, review the results and make use of the website.
24. Non-members may review the results, make use of the services of the website but cannot make evaluations.

In the I-CODE model, the curriculum is evaluated by parents and students, ie consumers. Parents or students give points to ten questions to evaluate the curricula after becoming a member of the website and choosing their schools on www.icode.com.tr.

An I-CODE score is generated for each school by calculating an arithmetic mean of the sum of all evaluation scores. This score is variable and dynamics. Consumers can re-evaluate their schools. However, since each evaluation takes the place of previous one, a beneficiary can evaluate only one item. In this context, the scores of schools are not constant. Parents and students may be dissatisfied with the school's curriculum later which they are pleased with today. The school performance in the beginning of the year may not be the same as the year-end performance. Change of teachers, change of administrators, change of systems can affect the success of schools' curricula. At this point, I-CODE model is able to provide continuous evaluation of schools by using the internet and technology. Consumers (parents or students) can change their scores. Thanks to the internet and technological facilities, there is no need to meet with the parents and students, to visit the schools. Parents and students can access the I-CODE system from technology-supported devices (PC, tablet, mobile phone, laptop etc.) at any time and evaluate their school's curriculum. Thus, a database is created for each school's I-CODE score. This is the main logic that the I-CODE model contains and targets.

The model has features such as having a subjectivist and utilitarian philosophy; relativist and consumerist ideology, a design which is consumer-oriented and participant-oriented; externally-directed regarding the types of evaluation; and making impact, informal, input, process, output evaluation and inspired by Goal Free, Consumer-Oriented, Responsive models and it is also a model where direct beneficiary, ie parents and students, assume the role of evaluation. It can also be used as a mechanism to provide feedback to the beneficiary, the school, the public and the system with the obtained results.

Findings Related to The Second Sub-Objective of The Research

Applicability of I-CODE Model

The I-CODE curriculum evaluation model is the first and only model that gives the responsibility of evaluating only to consumers (parents and students). In addition, the curriculum is designed as a new model that provides complete continuity and running the evaluation process entirely on the Internet. However, the applicability of this proposed new model creates an important question. In order to question the applicability of the I-CODE model, that is to say, the suitability of real life and its realism, interviews were held with three experts specialized in curriculum development and an academic specialized in information technology. The outcome of the interviews revealed three main themes: "Academic Dimension", "Data Security Dimension" and "Legal Dimension". In the process of designing the model about the legal dimension emerging as the third theme, an unstructured interview was held with a jurist and a lawyer. Additional opinions on the legal dimension were requested and these opinions were added to the legal dimension theme and interpreted. These three themes and their opinions on this matter are explained under the title of themes.

Themes

Academic Dimension

Expert 1 (Curriculum Development Specialist): Model development work is hard and challenging work that involves quite a long time. Your website seems to deal with choosing and evaluating private schools more than a model design... 27.11.2015

Expert 1 (Curriculum Development Specialist): You used contradictory expressions in the subdivision of the philosophy, ideology and design, and the name of the model, general introduction. You used expressions like participant-focused somewhere and then you shifted to beneficiary-oriented. Even, it may be perceived by the reader as having been centered on the Internet. 27.11.2015

Expert 1 (Curriculum Development Specialist): You are studying for your doctoral dissertation in Curricula and Teaching. However, what you are designing as a model seems to be a very effective school evaluation study rather than a curriculum evaluation study. 27.11.2015

Expert 1 (Curriculum Development Specialist): The questions and variables that you set as the evaluation criteria seems more covering hidden curriculum and evaluating the educational environment. Thus, it seems more like a study for Education Management rather than a study for Curricula. 27.11.2015

Expert 1 (Curriculum Development Specialist): You have also left the evaluation to the parent or student initiative. In fact, you need to set a standard here. Who do you call as a consumer? 27.11.2015

Expert 2 (Curriculum Development Specialist): It is difficult to use this in the field of curriculum evaluation. Because I understand what curriculum evaluation is different. For example, I understand the evaluation of the curriculum of a mathematics course. 11.05.2015

Expert 2 (Curriculum Development Specialist): Rather than evaluating the curriculum, it is more like evaluating satisfaction. 05.11.2015

Expert 2 (Curriculum Development Specialist): It can be implemented in real life. 05.11.2015

When the opinions of the experts are examined, it is seen that there are question marks about the belonging of the I-CODE model to the field of curriculum evaluation. Almost all experts emphasize that the evaluation of curricula has different features in scope. The experts focus on whether the I-CODE model meets the usual curriculum evaluation criteria. However, another thing worth mentioning here is that among experts' opinions there are also some ideas that the evaluation of the curriculum is narrow in Turkey and accepted as the curriculum evaluation. It is seen that academicians who have worked in many curricula such as Bobbitt, Dewey, Oliva, Varış and Demirel have included in-school and out-of-school, directed and even undirected factors in the definitions of curriculum. The emphasis of Eisner, Taba, Oliva, and Bobbitt on the difference between the way we define the curriculum has been expressed in the relevant part of the research. The reason why the experts respond to the I-CODE curriculum evaluation theory doubtfully can be interpreted as being familiar with the models that accept micro definitions and questioning targets, content, educational situations, evaluation subjects

when it comes to curriculum evaluation in Turkey and even around the world. Among expert opinions, the self-criticism made on this issue is remarkable.

Expert 2 (Curriculum Development Specialist): We are doing micro definitions. Unfortunately, this is not a curriculum evaluation definition, according to our way of growing. It is obvious that we define it very narrowly when we look at the foreign literature. Unfortunately, we are mostly looking at the curriculum. 05.11.2015

Expert 2 (Curriculum Development Specialist): If we define the curriculum in a broad sense, that is to say, if we see curriculum as a cognitive, emotional, psychomotor development document, we cannot provide it only with the lesson we give. The position of the school and the competence of the staff will also be effective. We need to expand our curriculum definition in our minds. In this sense, you have to convince us in the sense of literature. 05.11.2015

Expert 2 (Curriculum Development Specialist): I do not evaluate the course schedule of a school in terms of the curriculum, I also evaluate the school's training curriculum. You should say I am evaluating the school's curriculum. 05.11.2015

Expert 3 (Curriculum Development Specialist): A qualified training curriculum brings a lot with it. Conditions such as hidden curriculum, social experiences, atmosphere should be included in the field of contemporary curriculum. 05.01.2016

Expert 3 (Curriculum Development Specialist): The curriculum is exactly this (that you defined) ... 05.01.2016

When expert opinion and the relevant literature review are examined, it appears that there is still no full consensus around the world at the point of defining curriculum. However, when the opinions are examined, it can be said that micro-scale definitions of curriculum are accepted in Turkey and therefore curriculum evaluation theories are perceived accordingly. In addition, it can also be said that there is a need to clarify the division in the field of school supervision, school management and evaluation of curricula. According to the researcher, the curriculum is defined in a macro-scale and all the conditions that affect the learners and the learning can be accepted under the curriculum. While the existence of the hidden curriculum is slightly expressed in the last period, it can be said that it is very restrictive to view the curriculum as a written document only. The curriculum is an abstract concept defined in different ways by different educators in the field. Perception of such an abstract concept as a written document with only objective, content, educational situations and evaluation dimensions can be interpreted as a focus on the syllabus and training concepts rather than the education curriculum.

The I-CODE curriculum evaluation model, which is being developed by the researchers, is designed to evaluate the curricula through consumers. The success or failure of the model may be an effort that can contribute not only to the field of curriculum evaluation, but also to clarify the definition of the curriculum. Examples of expert opinions in support of this idea include the following:

Expert 2 (Curriculum Development Specialist): Actually, the definition you give convinces me. I think it would be better if you can support this definition. 05.11.2015

Expert 4 (Information Technology Specialist): This will contribute to the literature. 20.10.2015

Expert 2 (Curriculum Development Specialist): Why do we take children to school? We are giving the education to provide cognitive, affective, psychomotor development. Well, can we just look at it on the basis of teaching and curriculum? Then I do it at home. Why do I need special education environments? When we think that these are included in the curriculum, our literature description will change our minds. 05.11.2015

When the expert opinions given above are examined, it can be deduced that the I-CODE model can be used in the field of evaluation of the curriculum when the curriculum description is supported by the literature. When expert opinions are examined once again, it can be interpreted that the definition of the curriculum apart from the curriculum evaluation is open to the development of the programmers' mind in Turkey, but it needs to be supported by the literature.

Data Security Dimension

The importance of data security has been emphasized when the feasibility of the I-CODE model is questioned in interviews with experts. Some of the expert opinions in this regard are:

Expert 2 (Curriculum Development Specialist): There is security as an obstacle to implementation, but something has been done for security. 05.11.2015

Expert 2 (Curriculum Development Specialist): Inclusion of expert opinions might affect in a positive way in the following periods. 05.11.2015

Expert 3 (Curriculum Development Specialist): As participation increases, more reliable results will emerge. It may start to be considered important statistically when evaluated over fifty. 05.01.2016

Expert 4 (Information Technology Expert): The more user means the more reliable the results. 20.10.2015

When experts' opinions are examined, concerns over data security draw attention. This can be interpreted as the fact that the I-CODE model has a risk of manipulating. In the process of interviews, when the measures taken by the model in order to ensure data security are expressed by the researcher, it can be said that experts expressed their ideas which can be regarded as positive. However, it is stated that the model needs to develop on data security. In particular, the identity of the participants, whether they are indeed parents or students, possibilities of re-entry, deliberate manipulations, misleading evaluations to profit from, the risk of misappropriation of credentials, the lack of sufficient participation in the evaluation process and the complete elimination of the objectivity can be said to be very vital.

Legal Dimension

Expert 1 (Curriculum Development Specialist): It is necessary to pay attention to the legal procedures before applying these types of studies and designs and to get approval from the Ministry of Education / Provincial Directorate of National Education since on the other side, there is an important issue that deals with the economic inputs such as the quality of private schools and the preference of schools. 27.11.2015

Expert 4 (Information Technology Expert): Can schools complain about the legal aspect? 20.10.2015

Expert 4 (Information Technology Expert): Not applicable unless the required permissions are obtained. 20.10.2015

When the opinions of the experts in education are examined, it is noteworthy that these kinds of informatics-supported studies to evaluate the curricula of private schools can create legal concerns. The reasons for these concerns can be seen in the scientific work processes in Turkey- especially those involving institutions- that schools or related institutions do not allow researchers to collect information during the information gathering process, insist on permission documents, and refraining from their superiors. The obstacles that institutions can create due to refraining from the superiors can tire researchers and even can change the process of research. Putting up with bureaucratic obstacles, such as data gathering, analysis and access to evidence, which are inherent in science, can greatly affect research dynamics. In this context, experts may have been sensitive to carry out the research on the legal ground because of the possibility to experience bureaucratic obstacles. The views of the legal experts were consulted at the beginning of the investigation to pave the way for future research. The views of the legal expert and the lawyer are as follows:

Legal Expert: Institutions sue the website for being mentioned in the research, but there is no trouble as long as there is no attack on personality rights. If they do, they cannot win the case. 16.07.2015

Legal Expert: If there is a forum on the website then there may be problems. There may be insults to the schools on that part and it will be legal problem. 16.07.2015

Lawyer: I have checked the website carefully. There are not any expressions, opinions and beliefs contrary to the personal rights recognized by The Constitution of the Republic of Turkey and the laws of the Republic of Turkey. There isn't any problem regarding legality. 05.01.2016

As a result of the negotiations for eliminating the risks that may be experienced regarding legality, opinions are noteworthy in contrast to what education experts think. It can be said that I-CODE model and the functioning of the website are not interfering with the natural person or legal identity according to the opinions given above. In the light of these views, it can be said that the website of the I-CODE model can be sued but the case cannot be won. It can be predicted that there is no problem regarding legality, but there is a need to make research and development (R&D) works on the legal grounds. In addition to these comments, there has been no official objection of approximately 298,372 unique visitors, evaluated 363 private schools and 1443 official members throughout Turkey over the two-year period (July 2015-July 2017) since the activation of the model's website. On the contrary, it has been seen that the educational institutions consider this site as important and communicate verbally and in writing that they want to take part in the site. This can be noted as a detail that can be examined by another research.

Functionality of I-CODE Model

As a result of the research, the questions of if developed I-CODE model is applicable and, whether it achieves its goals or not are considered important. It is a fact that every applicable model is not functional. In order to understand the function of the model, it was tried to clarify the subject through interviews made with experts. The findings obtained from the opinions of one information technology expert and three curriculum development experts were interpreted by the researcher in this section. Some prominent expert opinions in this regard are:

Expert 2 (Curriculum Development Specialist): It serves a purpose in broad definition. In terms of both parents and students, I find the evaluation of the curriculum useful in general. 05.11.2015

Expert 2 (Curriculum Development Specialist): I do not see this as just a thesis; it's something perfect, and it can be something like Google after the doctorate. 05.11.2015

Expert 2 (Curriculum Development Specialist): The school also will benefit from it. Maybe it will say my foreign language education is not very much liked. 05.11.2015

Expert 2 (Curriculum Development Specialist): This is open system evaluation of operations at the same time... 05.11.2015

Expert 2 (Curriculum Development Specialist): When a parent wants to send a child to a school, he or she is looking for a school through straining their every nerve. There is a need. 05.11.2015

Expert 3 (Curriculum Development Specialist): I think it is very functional because it has an integrative curriculum evaluation rationale. It has a holistic rationale that focuses on assessing the extent of the curriculum rather than the course itself. 05.01.2016

Expert 4 (Information Technology Expert): A good curriculum that can be launched to the market. I liked it too. 20.10.2015

Expert 4 (Information Technology Expert): It becomes more useful when it is developed and finalized. They may even want to buy it. 20.10.2015

Expert 4 (Information Technology Expert): The parents may benefit from it through seeing the evaluations of other parents and have an opinion. It is useless for the learners because they are not interested. It may also help the managers to make the school more attractive, to correct the missing aspects and to present it on the site ... 20.10.2015

Within the scope of the research, the basic idea of developing the I-CODE model and questioning its applicability, functionality has been set out. In the light of findings and interpretations, it can be said that the model can contribute to the field, and the model is assumed to be practical and functional. It is important to integrate the field of evaluation of curricula to the internet, social media and mobile technology which have started to affect the world in the 2000s and lifted its effectiveness in 2010s. In this direction, an attempt has been made to develop a system that is internet based and can be reached anytime, anywhere. In the light of findings and interpretations, it can be said that the I-CODE system is capable of achieving these. However, the needs to update this model, self-renewing according to the feedbacks to keep pace with the rapid change of the digital era are considered important. Nowadays, the preparation of a website can be accomplished in a very short time. The main problems are the dissemination of the digital infrastructure to be prepared, the announcement of it and investment. In the research process, efforts to disseminate have required considerable effort as well as the preparation of basic characteristics of the model and the system infrastructure. It may be useful to consider these requirements in similar studies.

DISCUSSION, RESULTS, AND IMPLICATIONS

Educational evaluation is seen with a slightly different logic especially in America in the 1800s. There are comparative studies conducted through tests (yearly) on this subject by Boston School Committee in 1845 and 1846 and also with the effect of Horace Mann in Massachusetts (Fitspatrick, Sanders and Worthen, 2004: p. 31). According to some sources, the first study to be accepted by the curriculum evaluation is a comparative study of Joseph Rue's spelling performance on 33,000 students in 1897 (Patton, 2008: p. 15; Erden, 1998: p. 10). Although Rue's work seems to be the first study, it appears that the evaluation of curricula has increased significantly after the 1950s (Ornstein and Hunkins, 1993: p. 324). Especially the "Sputnik Event" which was experienced in 1957 can be considered as a turning point for the evaluation of the curriculum in education.

In 1957, when the Russians sent Sputnik 1 and Sputnik 2 into space, it caused the American education system to criticize itself severely the which saw itself as a pioneer in the field of education. (Alderson and Beretta, 1992: p. 12-13; Patton, 2008: p. 15; Popham, 1993: p. 2-5). The Sputnik Event is a milestone in the field of curricula. Because of the Sputnik event, which created the image of the Russians ahead in space science and therefore in education, the American government and its educators began to take their curricula more seriously spent much more time on the evaluation of the curricula with the help of state (Alderson and Beretta, 1992: p.13; Popham, 1993: p. 2-5). This historic development clearly has revealed the need to evaluate curricula.

Tyler's Objective Model, Stufflebeam's Context-Input-Output-Output (CIPP) model, Stake's Countenance Model, Stake's Responsive Model, Provus's Disperancy Model, Scriven's Goal Free Model, Eisner's

Connoisseurship Model, Alvin's UCLA Model and Scriven's Consumer Oriented Model are preliminary models in curriculum development. Remarkably, the appearance of most of the mentioned models except Tyler's Objective Model, are seen after 1957 Sputnik Event. It can be said that in literature review process, researchers inspired by especially Consumer-Oriented, Goal-Free, and Responsive models and these models can be said to close to the I-CODE Model.

Consumer-Oriented was proposed by Scriven in 1967 (Spaulding, 2014: p. 55). It focuses on whether the needs of the consumers and the social aims can be met, rather than looking at the achievement of the goals defined by curriculum developers. It helps the consumers to define and assess the value of service, and also to define alternative products and services (Stufflebeam and Coryn, 2014: p. 343). The I-CODE model can be said to evaluate in order to benefit consumers with a logic parallel to the Consumer-Oriented Model.

It is important to know the advantages and disadvantages of the Consumer-Oriented Model because it is the source of inspiration to the I-CODE model. This approach has many advantages. It can easily be applied through using a checklist, likert scale and form of a questionnaire or evaluation (Green, 2011: p. 24). This approach helps to make clear, well-informed and reliable decisions with clear questions (Green, 2011: p. 24). Independent appraisers can evaluate mercilessly. Thus, other consumers can be protected from poor or exaggerated services, products, curricula (Stufflebeam and Coryn, 2014: p. 183). In this context, the use of I-CODE model can be easy, fast and economical. It may guide those who already use the curriculum or the candidate consumers.

There are some points where the Consumer-Oriented Model is criticized. Excessive use can cause a problem. If they are asked to fill too frequently, ongoing customer or employee may not take the evaluation forms seriously (Green, 2011: p. 24). If it is too independent from the team, there may be some problems. Consumers making the evaluation may not be able to focus on the correct spot. Consumers may be insufficient to provide accurate feedback (Stufflebeam and Coryn, 2014: p. 183-184). It is difficult to find bulletproof evaluators (Stufflebeam, Madaus and Kellaghan, 2002: p. 66). In this context, the competence of the parents or students evaluating the curriculum may become a problem in the use of I-CODE Model. Evaluations coming from the ones who hasn't got any idea about the educational philosophy, the approaches that it adopts or applications may affect its validity in a bad way.

Scriven's Goal Free Model suggests looking at the curriculum's values, by-products, and even emotional factors, rather than just looking at the target dimension of the curriculum. Attention is paid to their importance and quality by observing without a checklist and recording all valid data (Boulmetis and Dutwin, 2011: p. 200). The I-CODE model is designed just as the Goal Free Model regarding focusing on the curriculum's values, by-products, and even emotional factor as opposed to limiting the curriculum through focusing on the target dimension in a systematic and objective framework. The curriculum's observable outputs and participatory needs based on the documentable effects are assessed (Imas and Rist, 2009: p. 186).

It may be important to know the advantages and disadvantages of the independent evaluation approach as it is the source of inspiration to the I-CODE model. This approach has many advantages. It is more useful than target-oriented evaluation. It is more appropriate for medium-term objectives (Stufflebeam and Shinkfield, 1988: p. 317). It is better at finding side effects. It is less inclined to social, perceptual or mental prejudices. It provides a wide variety of fair and professional evaluations (Stufflebeam and Coryn, 2014: p. 348). It is less influenced by politics. The interaction of evaluators and politicians is very small compared to other methods (Crabbé and Leroy, 2008: p. 78). Apart from all these advantages, Goal-Free Model is an assistive technique in applying the Consumer-Oriented Model (Stufflebeam and Shinkfield, 1988: p. 317). In this context, it can be said that the I-CODE model evaluates independently from the goal to help the Consumer-Oriented Model. It can be expected to offer a fair and professional evaluation that is less affected by politics and prejudices, offering diversity.

There are some disadvantages of the Goal-Free Model. The evaluation criteria are determined by the evaluator and it is difficult not to be influenced by politics (Crabbé and Leroy, 2008: p. 78). It can be very time consuming. In order to be able to discover all the possible products, a process and time may be required where the technical information is used well. If it is not done well, things that are accomplished well may not be noticed (Bee and Bee, 2000: p. 77). In this regard, the I-CODE model may be said to have a risk of being affected by politics while setting the evaluation criteria. When evaluating, it can be said that an effective process should be provided and attention should be paid to details.

One of the models that was effective in developing the I-CODE model was the Responsive Model. The Responsive Model was developed by Stake at the beginning of the 1970's while he was working as an evaluation specialist at the University of Illinois (Crabbé and Leroy, 2008: p. 182). Side effects and coincidental gains are also identified and tested as outputs of the curriculum (Stufflebeam and Coryn, 2014: p. 192). In Responsive Model; the evaluator must work with and serve at the same time with a group of service providers consisting of a wide variety of individuals, such as teachers, managers, taxpayers, lawmakers and financial sponsors. People who are getting service is the consumers who are giving advice to understand, evaluate and develop the

curriculum; need the advice of the evaluators, and the one who is in search of these (Sufflebeam and Corny, 2014: p. 192). It can be said that the evaluation of the I-CODE model is seeking a response by working with the ones who are getting service to see if the curriculum meets the needs, as in Stake's Responsive Model.

It may be important to know the advantages and disadvantages of the Responsive Model as it is the source of inspiration to the I-CODE model. This model has many advantages. The Responsive Model is relative. The approach allows comparing data collected from different, often contradictory, views of different stakeholder groups. It reveals the complexity of social reality (Crabbé and Leroy, 2008: p. 182). The Responsive Model focuses on the reactions, concerns and problems of the curriculum and stakeholders (Green, 2011: p. 25). Apart from the anticipated political effects, it may include side effects and incidentally acquired values. It has an adaptive design that adapts to changing situations. It provides to inform the stakeholders (Crabbé and Leroy, 2008: p. 182). In this regard, the advantages of I-CODE Model can be said such as focusing on the different effects of the curriculum, informing the stakeholders, considering the social reality relatively in parallel with the Responsive Model.

There may also be the disadvantages of Responsive Model such as focusing overly on subjective data. Stake acknowledges that he has been compromising on certainty of the measurement even when trying to reduce this by blending it with different data collection techniques. However, it is argued that this altruism enhances usability (Crabbé and Leroy, 2008: p. 182). In this context, it can be said that the I-CODE model compromises the accuracy of measurement and is highly subjective.

The results of the research are as follows:

1. Curriculum according to I-CODE model; are all plannable internal and external factors that affect the student, create experience for him / her, and meet their needs.
2. Model has features such as having a subjectivist and utilitarian philosophy; relativist and consumerist ideology, a design which is consumer-oriented and participant-oriented; externally-directed regarding the types of evaluation; and making impact, informal, input, process, output evaluation.
3. The evaluation process is also the model's feedback mechanism.
4. The model carries applicable features in the field of curricula.
5. It is applicable in terms of legality.
6. It is functional in terms of evaluation of the curricula.
7. It benefits the curriculum development specialist, educators, parents, students and institutions.

The suggestions that the survey reveals are listed below:

1. Studies can be done to increase the reliability and validity of the I-CODE model.
2. Improvements in security and website infrastructure can be made by following developments based on the use of Internet infrastructure.
3. The ease of use and the prevalence of the model can be improved as technological facilities are developed.
4. The I-CODE model may include an expert evaluation and scoring on the evaluation process.
5. Applications seen as useful by examining today's social media trends can be included in the evaluation field.
6. In order to overcome the model redundancy in the field of curriculum evaluation and the complexity created by this situation, studies can be done to classify the curriculum evaluation area.
7. The curriculum evaluation database can be expanded by including all institutions that are formal and non-formal in Turkey.
8. Once worldwide needs analysis has been carried out on behalf of all education and training institutions and curriculum evaluation questions have been obtained, evaluations can be done through the model's website.
9. Evaluation by other affected people may be added besides the parents and students.
10. Studies can be done on the clarity of the model.
11. It can be studied on social media and curriculum evaluation.

12. The quality of curriculum evaluation questions of the model can be increased.
13. The model can be applied by Ministry of National Education.
14. It can work as a model for the teachers in planning and in the education process.
15. The participation of all formal and non-formal education institutions in the world and Turkey can be provided.

ACKNOWLEDGEMENT

We are deeply grateful to Aydın Doğa College and all its staff, parents and students, the principals of the Doğa College for helping us to collect data. We also want to thank Tarcan Cantürk who helped in website design and its applicability. We would also like to express our gratitude to Prof. Dr. Nevin Saylan, Prof. Dr. Şener Büyüköztürk, Prof. Dr. Asuman Seda Saracaloğlu, Prof. Dr. Salih Uşun, Adj. Prof. Orhan Kumral, instructor Dr. İsmail Zencirci, legal expert Altan Rençber, lawyer Aydın Fırat Muslu for their contribution.

REFERENCES

- Alderson, C. and Berretta, A. (1992). *Evaluating Second Language Education*. Cambridge, United Kingdom: Cambridge University Press.
- Baker, E. A. and Goodman, R. M. (2003). *Community Assessment and Change: A Framework, Principles, Models, Methods and Skills*. Scutchfield, F. D. and Keck, C. W. (Ed.) *Principles of Public Health Practice (Second Edition)*. p. 177-190. United States of America: Thomson Delmar Learning.
- Bee, F. and Bee, R. (2000). *The Complete Learning Evaluation Toolkit*, Camp Road, London: Chartered Institute of Personnel and Development (cipd).
- Belvis, O. (1989). *Curriculum Building in Nursing: A Process*. United States of America: Jones and Bartlett Publishers.
- Bobbitt, F. (1918). *The Curriculum*, Boston, New York, Chicago, San Francisco: The Riverside Press Cambridge.
- Boulmetis, J. and Dutwin, P. (2011). *The ABCs of Evaluation: Timeless Techniques for Program and Project Managers*. San Francisco, CA: John Wiley&Sons, Inc.
- Charmaz, K. (2005). *Grounded Theory*. Smith, J. A., Harré, R. and Van Langenhove, L. (Ed.) *Rethinking Methods in Psychology* (p. 27-49) London, Thousand Oaks, New Delhi: SAGE Publications.
- Cohen, L., Manion, L. and Morrison, K. (2007). *Research Methods in Education (Sixth Edition)*. Routledge, London, New York: Taylor & Francis Group.
- Crabbé, A. R. and Leroy, P. (2008). *The Handbook of Environmental Policy Evaluation*. U.S.A.: Earthscan.
- Dessinger, J. C. and Moseley, J. L. (2004). *Confirmative Evaluation: Practical Strategies for Valuing Continuous Improvement*. San Francisco: John Wiley and Sons.
- Erden, M. (1998). *Eğitimde Program Değerlendirme*. Ankara: Anı Yayıncılık.
- Fitzpatrick, J. L., Sanders, J. R. and Worthen, B. R. (2004). *Program Evaluation Alternative Approaches and Practical Guidelines (Third Edition)*. U.S.A.: Pearson Education, Inc.
- Glaser, B. G. and Strauss, A. L. (2012). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. New Brunswick (U.S.A), London (U.K.): Aldine Transaction, A Division of Transaction Publishers.
- Girgis, A. (1998). *Practice in Cancer Control Programme Evaluation*. Scott, D. and Weston, R. (Ed.) *Evaluation Health Promotion* (p. 109-125). Padstow, Cornwall: Nelson Thornes Ltd.
- Green, R. A. (2011). *Case Study Research: A Program Evaluation Guide for Librarians*, Santa Barbara, California: Libraries Unlimited.
- Guerra-Lopez, I. J. (2008). *Performance Evaluation: Proven Approaches for Improving Program and Organizational Performance*. United States of America: John Wiley&Sons, Inc.
- Imas, L. G. M. and Rist, R. C. (2009). *The Road to Results: Designing and Conducting Effective Development Evaluations*. Washington DC: The World Bank.

- Lawrenz, F. and Thao, M. (2014). *Review of Science Curriculum Evaluation*. Lederman, N. G. and Abell, S. K. (Ed.) *Handbook of Research on Science Education: Volume II* (p. 759-774). New York, NY: Routledge.
- Lunenburg, F. and Irby, B. (2006). *The Principalsip: Vision to Evaluation*. United States of America: Thomson Wadsworth.
- Mitchell, M. L. and Jolley, J. M. (2010). *Research Design Explained (Seventh Edition)*. U.S.A.: Wadsworth, Cengage Learning.
- Patton, M. Q. (2008). *Utilization-Focused Evaluation*. Thousand Oaks, California: SAGE Publication, Inc.
- Ornstein, A. C. and Hunkins, F. P. (1993). *Curriculum Foundations, Principles and Issues (Second Edition)*. United States of America: Allyn and Bacon.
- Popham, W. J. (1993). *Educational Evaluation*. United States of America: Allyn and Bacon.
- Punch, K. F. (2000). *Developing Effective Research Proposals: Essential Resources for Social Research*. London, Thousand Oaks, New Delhi: Sage Publications, Inc.
- Punch, K. F. (2014). *Sosyal Araştırmalara Giriş: Nitel ve Nicel Yaklaşımlar*. (Çev. Bayrak, D., Arslan, H. B. and Akyüz, Z.) Ankara: Siyasal Bakımevi. (Original version was published in 2005).
- Scriven, M. S. (1993). *Evaluation Ideologies*. Madaus, G. F., Scriven, M. and Stufflebeam, D. L. (Ed.) *Evaluation Models: Viewpoints on Educational and Human Services Evaluation* (p. 229-260). Boston, The Hague, Dordrecht, Lancaster: Kluwer-Nijhoff Publishing.
- Smith, J. A. (2005). *Semi-Structured Interviewing and Qualitative Analysis*. Smith, J. A., Harré, R. and Van Langenhove, L. (Ed.) *Rethinking Methods in Psychology* (p. 9-26) London, Thousand Oaks, New Delhi: SAGE Publications.
- Spaulding, D. T. (2014). *Program Evaluation in Practice: Core Concepts and Examples for Discussion and Analysis (Second Edition)*. San Francisco, CA: Jossey Bass.
- Stufflebeam, D. L. (2003). *The CIPP Model for Evaluation*. Kellaghan, T., Stufflebeam, D. L. and Wingate, L. A. (Ed.) *International Handbook of Educational Evaluation, Part One: Perspectives*. p. 31-62. Dordrecht, Boston, London: Kluwer Academic Publishers.
- Stufflebeam, D. L. and Coryn, C. L. S. (2014). *Evaluation Theory, Models & Applications*. San Francisco, CA: Jossey-Bass.
- Stufflebeam, D. L., Madaus, G. F. and Kellaghan, T. (2002). *Evaluation Models: Viewpoints on Educational and Human Services Evaluation*, Dordrecht: Kluwer Academic Publishers.
- Stufflebeam, D. L. and Shinkfield, A. J. (1988). *Systematic Evaluation: A Self-Instructional Guide to Theory and Practice*, Boston/The Hague/Dordrecht/Lancaster: Kluwer-Nijhoff Publishing.
- Thomas, J. C. (2010). *Outcome Assessment and Program Evaluation*. Renz, D. O. and Herman, R. D. (Ed.) *The Jossey-Bass Handbook of Nonprofit Leadership and Management (Third Edition)*. p. 401-430. San Francisco: John Wiley&Sons.
- Yıldırım, A. and Şimşek, H. (2006). *Sosyal Bilimlerde Nitel Araştırma Yöntemleri*. Ankara: Seçkin Yayınları.
- Yüksel, İ. and Sağlam, M. (2014). *Eğitimde Program Değerlendirme: Yaklaşımlar, Modeller, Standartlar*. Ankara: PegemA Yayınevi.