Croatian Journal of Education
Vol.20; No.2/2018, pages: 621-672
Preliminary communication
Paper submitted: 6th April 2017
Paper accepted: 23rd October 2017
https://doi.org/10.15516/cje.v20i2.2736

A School-Based Curriculum Development for the *Teaching Principles and Methods* Course

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Abstract

The purpose of this study is to develop a school-based curriculum for the Teaching principles and methods *course. The study was designed as action research. In this context, the implementation process was carried out in a 14-week period with the participation of 36 sophomore students taking the* Teaching principles and methods *course at a State University, Faculty of Education, Department of Classroom Teaching, in the fall semester of the academic year 2014/2015. Observations, interviews and document analysis were used to collect data. According to the findings, it was observed that the problems encountered in the implementation process were mainly associated with the insufficiency of the time allocated to the course for all learning outcomes in the guideline draft that directed the action plans, the functional implementation of peer assessment process, and the seating arrangement within the group. Most of these problems were tackled in the action research process so that the difficulties that students had during the course decreased, while the number of participants who found the implementations satisfactory increased.*

Key words: *action research; school-based curriculum development; Teaching principles and methods course; teacher education.*

Introduction

Among the fundamental goals of curriculum for any level of education, a common one is to raise individuals who think scientifically while attaining any piece of knowledge, who question what is taught from a critical standpoint, and who have problem-solving skills (IBE [International Bureau of Education], 1998). However, one thing to be considered in this process is the question whether it is possible to equip students with knowledge and skills outlined in the curriculum at the same

efficiency level across all schools, since the structure of the educational plan, place, organizational layout, financial sources, the characteristics of teachers, community, and students vary substantially (Lewy, 1991; Ringwalt, Ennett, Vincus, & Simons-Rudolph, 2004; Yüksel, 1998). This requires taking regional and cultural differences into account while planning and implementing curriculum (Bümen, 2006), which increases the significance of developing "school-based curriculum" day by day (Marsh, Christopher, Lynne, & Gail, 1990; Priestly, Minty, & Eager, 2013).

The concept "school-based" presupposes that all education-related decisions should be made by the school (Marsh et al., 1990). Similarly, "developing a school-based curriculum" (SBCD), which is the focus of the current study, means that a curriculum is planned, designed, and implemented by the school that the students attend (Skilbeck, 1984, p. 2). It is stated that school-based curriculum development process could include activities such as adapting to the current curriculum, accepting its constant features or creating a new curriculum (Bezzina, 1991, as cited in Bolstad, 2004). Lewy (1991) indicates that this process, which he (she) defines as a developmental activity, requires the selection of teaching materials, correction of deficiencies of the current curriculum, adapting it to local needs and actions, such as developing a new curriculum unit or module. It can be seen that various researchers explain school-based curriculum development by using a lot of variables in addition to these activities which would be conducted throughout the process. For instance, Brady (1987) explained the twelve different types of school-based curriculum development using a classification system based on activity type (creating, adapting and selecting the curriculum, etc.) and participants (teachers, teacher groups, the whole school etc.) (as cited in Bolstad, 2004). Marsh et al. (1990) defined the school-based curriculum development process in three-dimensional structure adding time factor (one activity, short, medium, long-term plan) to this process.

It was found that the steps followed through school-based curriculum development process were not much different from the curriculum development process - starting from the needs analysis and ending in evaluation process (Skilbeck, 1984). The fundamental difference distinguishing this process from other curricula is localization of content and learning experiences (Wright & Johnson, 2000). In this context, a needs analysis in order to determine the needs and expectations of the school and stakeholders should be conducted, and the persons who closely know the school culture and needs should be appointed to curriculum development committee (Özyurt, 2015). Involving selection, adaptation, and creation of a curriculum, school-based curriculum development is said to be a process which is dependent on the participants and time constraints in the plan, and which also consists of continuous assessment and decision making (Bolstad, 2004; Marsh et al., 1990).

In countries such as England, Australia, and Israel, where developing school-based curriculum is a common process, this model has been reported to have positive contributions to helping students achieve ethical and philosophical outcomes,

maintaining pedagogic and economic autonomy (Ben-Peretz & Dor, 1986), meeting the needs of students, institutions, and regions (Bezzina, 1991, as cited in Bolstad, 2004, Day, 1990; Priestly et al., 2013), increasing the awareness of the personnel about the curriculum (Bezzina, 1991, as cited in Bolstad, 2004), and encouraging teacher participation in the curriculum development process (Keiny, 1993; Özyurt, 2015; Priestly et al., 2013). School-based approach has recently been prevalent in some other countries employing a federal education system such as the United States of America, Canada, and Australia via making schools more autonomous despite federal governmental supervision (Yüksel, 1998). Additionally, there is a tendency towards school-based curriculum development in countries with the central education system, such as Hong Kong, China, and Bangladesh, through assigning more responsibilities to schools in curriculum development (Chun, 1999; Gopinathan & Deng, 2006; Li, 2006; Power et al., 2012).

The relevant international literature indicates that research studies on curriculum development and assessment have examined school-based practice across primary education, secondary education, and in-service teacher education curriculum (Chun, 2006; Juang, Liu, & Chan, 2008; Keiny, 1993; Law, 2001; Li, 2006; Maphosa & Mutopa, 2012; Nutravong, 2002; Prestley, Minty, & Eager, 2013; Shawer, 2010; Xu, 2009). Since there is a top-down approach in terms of developing primary and secondary education curricula (Turkey Official Gazette, 2014, 28941 S.K.), there is only one relevant study conducted in Turkey. In that study, the efficacy of developing a school-based curriculum was analysed in terms of developing a value education curriculum for primary school students at a private school (Özyurt, 2015).

It is obvious that higher education is one of the fields in need of studies on school-based curriculum development (Colet & Durang, 2004; Mentkowski et al., 2002; Wolf, 2007). As for Turkey, contrary to primary and secondary education curricula, teacher education curricula of universities (Council of Higher Education [CHE], 2007) are allowed to develop school-based curricula due to the predicted innovations within the Bologna process (Colet & Durand, 2004; Eurydice, 2006).

Primary teacher training programs are one type of the pre-service teacher education curricula that should have priority in terms of reform efforts because knowledge and skills that students gain during primary education serve as the foundation for higher levels of education; therefore, primary education is considered to be one of the vital steps in education (Sağlam, Özüdoğru, & Çıray, 2011). Goals and content directed to furnishing students with skills, rather than pouring information into them, are the primary innovations within the field of education. However, the data presented by UNESCO Monitoring Report (2013) point out that one third of school-age children cannot gain the basic skills with or without school, which highlights the importance of improving professional qualities of classroom teachers. This also underlines how crucial professional teaching knowledge courses are. Latest updates and modifications of these courses were completed in 2006 (CHE, 2007); yet, it is not

possible to state that all the problems about the curriculum and its implementation have been overcome through these amendments (Ceylan & Demirkaya, 2006; Kara & Sağlam, 2014; Kumral, 2010; Kurt & Ekici, 2013; World Bank, 2011). Thus, scholars underpin that new reorganizations should be made in the structure of professional knowledge courses in order to increase learners' responsibility and to offer them more opportunities for development (Kurt & Ekici, 2013; Lewy, 1991; Mangali & Hamdan, 2015; Power et al., 2012). Besides, it is highly advised that a school-based approach should be incorporated into all curricula via systematic modifications across all aspects of teacher training, from pre-school to in-service education (Mangali & Hamdan, 2015; Westbury, Hansen, Kansanen, & Björkvist, 2005). The majority of professional qualities that teachers should have centre around the learning-teaching process whose goal is to equip pre-service teachers with performance standards to plan and implement instruction (CHE, 1999). *Teaching principles and methods* course is one of the professional knowledge courses that directly aims to teach these qualities.

Aim of the Study

A preliminary study conducted in accordance with the points mentioned above was utilized in order to perform a needs analysis about this course (Yeşilpınar-Uyar, 2016), and a draft of guidelines was prepared to depict the goals, learning outcomes, and the content of *Teaching principles and methods* course. This research aims to improve this draft of guidelines through implementation of a school-based approach and to finalize the curriculum of *Teaching principles and methods* course. In line with this aim, the following research questions were proposed:

- What are the problems experienced in the implementation process?
- What are the possible reorganization procedures for solving these problems?

All steps of the curriculum development process reflecting a school-based approach were defined and structured in line with the contextual characteristics and needs of pre-service teachers. Furthermore, the content of *Teaching principles and methods* course embodies fields conducive to adopting a school-based approach. Thus, this research is deemed significant in terms of improving the needs of pre-service teachers with respect to professional knowledge and skills, and it is hoped that pre-service teachers will gain some insight at the end of the current study, which will help them implement school-based practice after graduation.

Methods

Research Model

This research was designed in accordance with action research, one of the qualitative research methods. The entire research process was based on action research cycles suggested by Kemmis, McTaggart, and Nixon (2013), which include planning, action, observation-monitoring, and reflection. A specific type of action research, the approach in which the teacher is also the researcher was adopted for the current study. Action

part of the study lasted for 14 weeks and covered a total of 42 hours of class time. In this process of integrating action research and curriculum development, lesson plans served as the basis for each action plan. The planning process explained in the book by McTighe and Wiggins (1999), "The Understanding by Design Handbook", was employed to produce relevant plans.

Participants

The group of participants in the study included one of the researchers, who developed the curriculum during the implementation, and 36 sophomore students who were chosen by convenience sampling method and who were enrolled in *Teaching principles and methods* course at the State University, Faculty of Education, Department of Classroom Teaching, in the fall semester of the academic year 2014/2015.

In the middle and in the end of the implementation process, interviews were conducted with 14 focus group students. As for the selection of focus group students, different levels of academic success and class participation were set as criteria, and participation in the interviews was voluntary. Of all the focus group students, 11 were females and 3 were males, and the distribution of their GPA is as follows: 4 students between 2.01 and 2.50, 4 students between 2.51 and 3.00, 4 students between 3.01 and 3.50 and one student between 3.51 and 4.00.

Data Collection and Analysis

Observation, interview, and document analysis were employed to collect the research data. The aim of observation was to describe the implementation process and the participation of students in this process. When using unstructured observation model, no standard observation tool was used, but field-specific notes taken during the implementation and diaries completed after the implementation were utilized for data collection. All practices conducted within the classroom were videotaped. The diary notes were unstructured. The data obtained through these diaries include the teacher-researcher's perceptions and evaluations regarding the implementation process, and their reflections on the following action plan, which is a result of these evaluations. For data analysis, deductive content analysis method in the scope of the macroanalysis was used. Two categories, such as "difficulties during the lesson" and "suggestions for permanent learning" were focused on in this process.

Prepared in accordance with expert opinions, two semi-structured interview forms were used in the middle and at the end of the process. The aim of these interviews was to determine the unobservable experiences, perceptions and views of students regarding the implementation process. With respect to document analysis, reflective evaluation forms filled by the students at the end of each cycle were used together with worksheets and assessment sheets distributed during instruction.

As for the analysis of the data collected during implementation, macroanalyses were employed, and constant comparative analysis was followed for all these analyses (Glaser

& Strauss, 1967). The aim of macroanalyses was to determine the problems emerging during implementation and to ascertain relevant solutions.

Within the reliability and validity efforts, depth-oriented data were collected and constant observation was conducted (42 lessons) by staying in the research setting for a long time. Data and methods were varied through the use of observation, interviews, and document analysis in accordance with the suggested strategies (Brantlinger, Jimenez, Klingner, Pugach, & Richardson, 2005; Glaser & Strauss, 1967; Guba, 1981; Patton, 2002; Yıldırım & Şimşek, 2008). In addition, the findings obtained from the research data were described without interpretation, and supported with direct quotes and visuals. In this sense, some codes were used, such as F1 and F2 for focus group students and initials such as AB and HA for other students. The source of data and the relevant date are included at the end of each quote. Additionally, experts were asked to confirm all data and findings.

Results

Current Situation Analysis

In accordance with the results of needs analysis (Yeşilpınar-Uyar, 2016), the first goals of the curriculum were determined, and then the learning outcomes were written down. The basic structure explained by Posner and Rudnitsky (2006) was followed during the writing and classification process of learning outcomes. Accordingly, learning outcomes were classified as cognitive understanding, affective understanding, cognitive skills, affective skills, and psychomotor perceptive skills.

As for the selection of the content, on the other hand, coursebooks for teaching principles and methods (Doğanay, 2009; Ekici & Güven, 2013; Sönmez, 2008), strategies, techniques, and methods proposed during needs analysis, factors influencing students' success (Walberg, 1984, as cited in Ornstein, Pajak, & Ornstein, 2007), and strategies that enhance students' success (Brown & Atkins, 1988; Marzano, Pickering, & Pollock, 2001) were taken into consideration. Modular content organization approach (Demirel, 2007) was used in order to organize the content. Firstly, a draft of guidelines including the overall goals, learning outcomes, and distribution of topics across weeks was prepared to set a direction for the entire process of developing a curriculum during the implementation. The first action plan was developed in line with the draft of the guidelines.

Implementation Process

The design of the curriculum was completed via implementing, monitoring, evaluating, and reflecting studies of eight action plans developed during the process. The findings regarding this process are explained and presented in a way that includes each cycle. The data obtained from observations, relevant documents and interviews were utilized for the explanation of this process.

The First Cycle: Goals and Their Classification and Content Types

The first action plan lasted for six lessons and was designed to attain the following learning outcomes: explain the notion of the goal; explain the types of goals; classify the given learning outcome sample step of understanding and skill levels; explain the types of content and determine the appropriate content in accordance with the outcome. Figure 1 is the schematization of all steps taken in the First cycle.

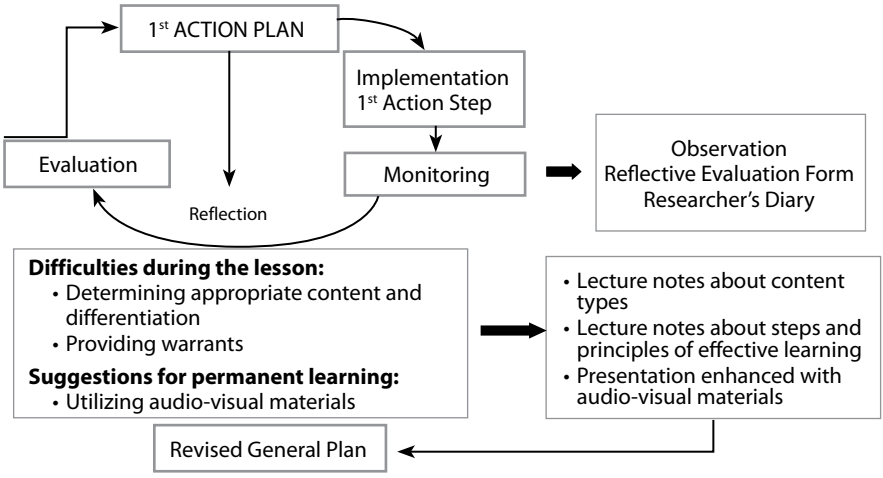

Figure 1. Steps within the First cycle

The process described in Figure 1 made use of the worksheet concerning the classification of goal types in terms of understanding and skill levels and another worksheet regarding the selection of content types compatible with the outcomes classified in terms of understanding and skill levels. Open-ended questions, observation, and reflective evaluation forms were employed for measurement and evaluation. Besides, students were given the assessment sheet prepared to develop a goal-content matrix concerning both the decision about the levels of outcome samples provided earlier and the selection of content types compatible with learning outcomes.

Observations during the implementation, reflective evaluation forms, and researcher diary indicated that students had problems choosing the appropriate content type (f:8) and providing evidence (f:5). Suggestions regarding the use of audio-visual materials (f:4) and handing out lecture notes (f:3) were grouped among those made to achieve permanent learning.

Based on the problems and relevant suggestions, decisions were made for the next action plan as to inform the students more about how to write evidence during the introduction of the course, to prepare lecture notes about the content of all action plans, to set up interview times in order to further clarify any unclear points, and to increase the amount of audio-visual materials. In addition, filling in the missing information about content types by combining them with the goals of other cycles was considered to be more effective for meaningful learning. Besides, feedback was given for work and

assessment sheets, and these sheets were prepared to be handed out to the students again at the beginning of the next cycle.

The interviews conducted at the end of the term revealed that revisiting the issue of content types in combination with the content included in other cycles, and relevant feedback worked to eliminate some of the problems. One of the focus group students stated the following about the importance of feedback:

> *At first, goal and content types were all mixed up for me. Then, I sat down and re-wrote the content types. After you handed us the matrix, I figured where I made a mistake. That was good (End-of-the-term Interview, F11, p. 10).*

The Second Cycle: Steps and Principles of Effective Teaching

The second action plan lasted for three lessons to realize the following learning outcomes: notice that considering individual differences during learning-teaching process contributes significantly to professional practice; explain the basic steps of effective teaching process; explain the primary principles to be careful about during teaching process, and propose solutions for problems emerging from individual differences in the classroom by complying with the teaching principles. Figure 2 shows the steps defined in the second cycle.

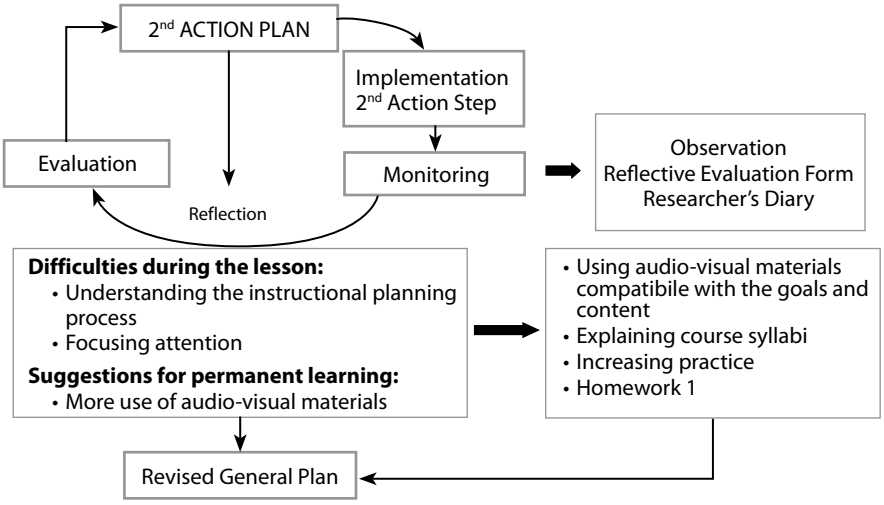

Figure 2. Steps within the second cycle

During the action process depicted in Figure 2, a worksheet regarding case studies was employed after presenting the relevant information about the content. Open-ended questions, observation, and reflective evaluation forms were used during measurement and evaluation process. Additionally, another worksheet was also used to analyze the case study, to determine the teaching principles employed within the case study, and to explain other practices that employed the same principles.

As part of the reorganizations to increase the use of audio-visual materials in the second action plan, a video was shown about the topic during the lesson, and some visuals concerning the topics to be covered during the term were posted onto the classroom board. The data obtained from monitoring endeavors indicated that students had had difficulties in "understanding the planning process of instruction" (f:4) and "focusing their attention" (f:4). As they serve as lesson plans, course syllabi were elaborated at the introductory part of lessons so as to help students enhance their knowledge and gain a stronger insight into the planning process of teaching. Furthermore, a homework assignment was given to students to prepare some activities as part of the plans. However, due to students' problems in focusing their attention, reorganizations had to be made to increase their participation in the process.

Research data indicated that "employing more audio-visual materials" (f:10) had been stated by more than one participant as part of suggestions to achieve permanent learning. It is noteworthy that this suggestion was repeated by more than one participant since video materials and visual elements had been added in the second cycle based on the reflections regarding the first cycle. This may be interpreted as a sign pointing out that students thought the visuals utilized during this process were remarkable and thus, they wanted them to be used more often. The data obtained from reflective evaluation forms can be taken as support for this interpretation.

> *Today's video was very good, I liked it a lot. I also love watching movies and it motivates me to watch video samples about the lesson topic more carefully. More video materials can be incorporated into lessons (REF, 22 October 2014, F11).*

Based on these, decisions were made to add more audio-visual elements compatible with the outcomes and the content, and to commence practice activities outlined in the draft guidelines earlier, as the process was moving to the third cycle.

The Third Cycle: Teaching Strategies, Methods, and Techniques

The third action plan continued for three lessons with the aim of attaining the following outcomes: explain the general features of expository learning strategy; explain the general features of lecture method; notice the differences between expository learning strategy and lecture method; explain the general features of question-and-answer method; prepare an activity that entails the use of expository learning strategy and question-and-answer method. Figure 3 displays the steps within the third cycle.

The action process depicted in Figure 3 was initialized with presenting relevant information about the content, and practice opportunities were increased in order to help students eliminate difficulties in focusing their attention. In this regard, "strategies, methods, and techniques" were demonstrated, and a worksheet concerning the examination and analysis of a sample activity utilizing expository learning strategy, questions and answers, and lecture methods was employed while teaching the strategies, methods, and techniques within the scope of the content. The presentation was also enriched in terms of visual materials. Open-ended questions, observation, and reflective

evaluation forms were employed during measurement and evaluation process. In addition, the students were given a homework assignment with a grading score key to prepare an activity that requires the use of expository learning strategy and question-and-answer method. The deadline for handing in homework was set as the end of the term, in order to give students enough time to prepare and improve their assignments.

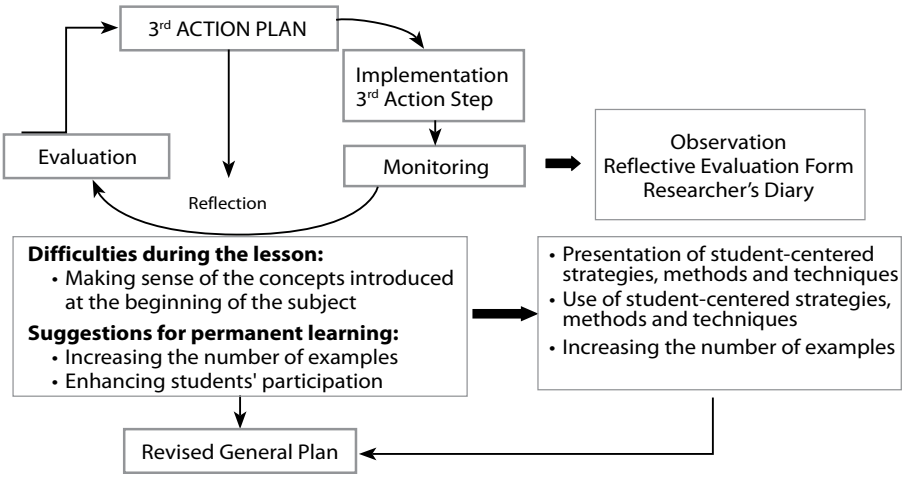

Figure 3. Steps within the third cycle

Students stated that they had difficulties (f:6) while making sense of the new concepts introduced at the beginning of this cycle. However, this problem was attributed to the fact that students had had no prior encounter with these concepts, and they seemed to have tackled the issue and overcome it with the help of the worksheet along the process. One of the students said the following about this:

> *I had problems focusing at the beginning of the lesson. I thought that the concepts were very complicated when I first heard about them. However, I managed to understand the lesson by following the worksheet given during the lesson (REF, 5 November 2014, SA).*

A closer examination of the suggestions written on the reflective evaluation form to enhance permanent learning revealed that suggestions "to increase the number of examples (f:6) and to enhance students' participation (f:3)" had been underlined by more than one participant. Accordingly, it was planned to move onto student-centered methods, techniques, and strategies, as had been outlined in the draft guidelines. With respect to another aspect of reflection efforts, feedback was given to the assessment sheet distributed during the previous cycle, and these forms were prepared to be delivered in the next cycle.

The Fourth Cycle: Student-Centered Strategies, Methods, and Techniques

Fourth action cycle lasted for six lessons to attain the following learning outcomes:

- Explain the general features of discovery learning strategy;

- Explain the general features of discussion method;
- Discuss the strengths and weaknesses of discovery learning strategy in the classroom;
- Notice that goals, content, students' levels, and physical layout of the educational setting should be taken into consideration while deciding on instructional strategies, methods, and techniques;
- Believe that it is necessary to employ strategies, methods, and techniques compatible with goals, content, students' levels, and physical layout of the educational setting;
- Explain the general features of case study learning method;
- Brainstorm to overcome any problems emerging from incompatibility with the goals, content, students' levels and from the physical layout of the educational setting;
- Make decisions as to which strategies and methods would be more plausible to tackle the problems emerging from incompatibility with the goals, content, students' levels, and from the physical layout of the educational setting;
- Prepare an activity entailing the use of discussion method and case study learning strategy.

The 4 steps within the fourth cycle are presented in Figure 4.

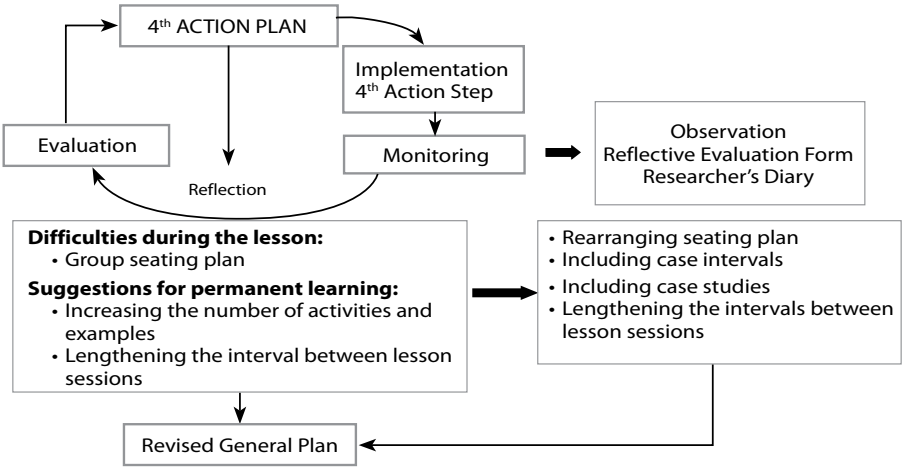

Figure 4. Steps within the fourth cycle

During the action process displayed in Figure 4, students changed their seats and started sitting in groups defined at the beginning of the term, on November 6, 2014. Discovery learning strategy, lecture method, question and answer method, and discussion method were employed during learning-teaching process. At this point, the teacher-researcher started the lesson by using discovery learning strategy in order to help students understand the general features of this strategy. Subsequently, students examined and analyzed the activity on the worksheet in terms of the stages of discovery learning strategy, and the whole process was supported with question-and-answer activities. By the second half of the lesson, the teacher-researcher informed students about the discussion method, and then the activity sample on the worksheet was analyzed in accordance with the aspects of discussion method. Lastly, a small-scale group

discussion was conducted, and students had the opportunity to discuss the strengths and weaknesses of both the expository and the discovery learning strategies in the classroom.

At the end of the lesson, students were given the assessment sheet to be returned the following week. On that sheet, students were asked to write three definitive and three other less significant features of discovery learning strategy to describe the strategy as a whole, and they were also supposed to explain discovery learning strategy by referring to these features. Besides, in-class observations and the questions directed during the process were used to judge in-class performance.

During the introduction of the lesson on November 19, 2014, the teacher-researcher presented the features of case study method and brainstorming techniques to students. In the second phase of the lesson, a worksheet about a case study was delivered to the groups of students, and the groups were asked to identify the problem in that case study. Subsequently, students brainstormed together to solve the problem that each group had agreed on. Following the brainstorming session, suggestions for possible solution were summarized and listed in order of significance by the help and guidance of the teacher-researcher. Again, open-ended questions, observation, and reflective evaluation forms were used to conduct the measurement and evaluation process. Additionally, students were given a homework assignment with a grading score key to prepare an activity that required the use of case study based learning and discussion methods. Deadline for submitting the assignment was set as the end of the term in order to allow students to finish their homework and to improve it.

Student participation increased considerably during this cycle, focusing more on practice than theory. The following excerpt written on November 6, 2014 by the teacher-researcher into her diary also underlines this increase:

> *Teaching discovery learning strategy by using the actual strategy was very effective in attracting students' attention. Asking students to discover the features and principles to employ it effectively, and strong and weak points of the strategy led to constant student participation…Small group discussion that accompanied the discovery process was the most enjoyable part that all students actively participated in.… (Researcher's Diary, November 6, 2014).*

Concerning the difficulties encountered during the lesson, group seating layout was mentioned by more than one participant (f:4). The analysis of observation records revealed that some students had problems seeing the board; thus, relevant decision was made to re-arrange the seating layout of the class.

Among the suggestions stated in reflective evaluation forms, increasing the number of case studies (f:5) and lengthening the interval period between the lesson sessions (f:3) were mentioned by more than one participant. The former can easily be attributed to the assumption that students were intrigued by the case studies introduced to them, and they thought the number was not sufficient because case studies were presented through support from audio-visual materials, analyzed by the class, and enriched by different activity examples during the fourth cycle as well. One of the focus group students said the following about the continuation of that practice:

I learned how to analyze case studies and how to brainstorm. I believe the steps to conduct an effective brainstorming process will be very beneficial for me in the future. I really enjoyed today's class. Current issues may be covered more often (REF, November 19, 2014, F11).

As for the other suggestion, decisions were made as to either give a longer break during the lesson or to increase the number of breaks, and it was planned to note students' opinions before moving onto the next step. However, it should also be noted that the number of suggestions concerning permanent learning drastically decreased in this cycle, and 13 participants were determined to be satisfied with the action plan and its implementation. Similarly, the number of students who reported having no difficulty during the process increased (f:20) as well. Reflective evaluation forms and the feedback notes provided for those students who had completed their homework assignments were prepared to be delivered to the students in the next cycle, and the fifth cycle was initiated.

The Fifth Cycle: Student-Centered Strategies, Methods, and Techniques

The fifth action plan continued for six lessons to achieve the following learning outcomes: explain the general features of inquiry learning strategy; notice the primary characteristics of cooperative learning method; choose strategies, methods, and techniques compatible with the outcomes; explain the general features of educational games and explain the general characteristics of six-hat thinking technique. The entire action process lasted for six lessons starting on the 26 November 2014 and finishing on the 27 November 2014. The steps conducted in the fifth cycle are schematized in Figure 5.

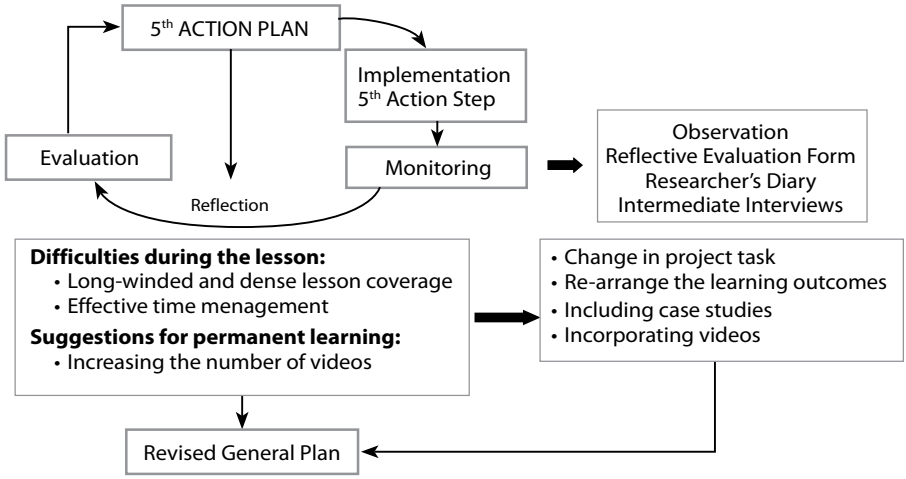

Figure 5. Steps within the fifth cycle

During the introductory part of the lesson on November 26, 2014, as part of the action process depicted in Figure 5, the homework assignments that had been reviewed were returned to the students, and students handed the latest ones in to the researcher. In accordance with the suggestions made in the fourth cycle, the seating layout of

students was changed from group to U shape, and the break given during the lesson was lengthened based on students' suggestions.

In the first part of the lesson, students were primarily informed about the content, and then the worksheet that had been developed through reflection on suggestions made during the fourth cycle regarding the lesson plan was delivered and analyzed. This worksheet included an activity prepared in the form of a case study, and students analyzed this activity sample. In the second half of the lesson, the features of cooperative learning were explained through in-class practice. Following the information presentation supported with question and answer method, the assessment sheet was completed in the classroom by using the jigsaw technique, one of the cooperative learning techniques.

In the first part of the lesson held on November 27, 2014, students were informed about the properties of six-hat thinking technique and educational games, and a group activity was conducted to employ the six-hat thinking technique. In the second part of the lesson, a video of an implementation sample administered at a private school was examined, and the group evaluated the six-hat thinking technique employed in the video in terms of efficacy.

All practical steps were supported with question-and-answer activities, and reflective evaluation form, open-ended questions, and in-class observations were utilized to assess the instruction. At the end of the implementation, students were assigned a project requiring from them to integrate the homework assignments that they had developed and were developing into the lesson plans as a group, to prepare two separate lesson plans, and to share and evaluate their plans in the classroom. As guidelines, the students were given project task instructions, one sample lesson plan, and grading score keys to assess the first and second lesson plans. During the implementation process, at least a two-hour interview session was allocated for each group to analyze and evaluate the lesson plans together with the teacher–researcher and to get feedback on the plans.

While monitoring endeavors, observations, reflective evaluation forms and researcher diary were utilized in the middle of the implementation process as well, and interviews were conducted with focus group students. The analysis of reflective evaluation forms indicated that two participants had had difficulties working in a group, two other participants had not been good at time management in group activities, and two other participants had felt time pressure in completing the homework assignments they had been assigned. One of the focus group students stated that s/he had problems in group work because of her/his individual preferences to study alone. This is the student's statement:

> *Working in a group is seriously difficult for me because I like individual study more and that is my preference (REF, 27 November 2014, F11).*

During the interviews, two focus group students expressed that long and intensive lesson content had made them tired. In fact, some of the points underlined by the students were not that easy for the teacher-researcher either, since the completion of the first action plan took two weeks longer than had been outlined due to some problems that

had emerged during selection of courses at the beginning of the term, which resulted in planning catch-up lessons to meet the 14-week deadline. This worried the teacher-researcher about students' attendance at catch-up classes and about effective use of time. Relevant pages of the diary filled at the end of this cycle explain these concerns as follows:

> *I realized that I have achieved the understanding level with respect to properties of educational games and six-hat thinking technique. …However, I could have given them more time when I asked them to employ the six-hat thinking technique. Sometimes, I notice that my struggle to use the time efficiently and to kill more than one bird with one stone wears me out. Because the problems encountered during selection of courses caused a delay in the beginning of the term, I think this is the only way to meet a 14-week deadline for the study to be completed (Researcher Diary, 27 November 2014).*

The data obtained from the interviews pointed out that students had been challenged cognitively by the work and assessment sheets they had been filling out since the first action plan, by the activities they had constantly improved based on the feedback provided to them since the third cycle, and by the project task given to them in this cycle. One of the focus group students said the following to express her/his relevant opinions:

> *The instruction is really good, but we haven't had such intense and loaded courses earlier. It goes rather above our heads. It's not only me, my friends feel the same, too. …We can't catch up. We already have make-up classes, which is part of the load on our programs. I like the class; the teaching method is quite good. As I've just said, it is dense for us …. Even though I have some mistakes in my activity sample, I scored 24. I corrected them, and I'll hand it back to you … (Interview, F3, pp. 2-7).*

So, the data obtained for this study employing a school-based approach called for the following decisions so as to raise students' real class activities to a more effective level as it was out of the question to change the period allocated for lessons.

- One of the lesson plans to be developed for the project will be chosen and implemented in a real class environment, and the results will be discussed and evaluated in the classroom. The other plan to be prepared, on the other hand, will be evaluated based on the presentation in the classroom.
- The homework which was planned to be assigned for the outcome, "prepare a lesson plan that requires the use of inquiry learning strategy, cooperative learning method, and station technique", will be excluded from the sixth action plan and will be postponed till the end of the term.

In accordance with the above decisions, one learning outcome within the draft guidelines was excluded, another one was re-organized, and assessment procedures concerning another outcome were re-scheduled for the end of the term. Moreover, two participants suggested increasing the number of videos. Therefore, it was planned to start the sixth action plan with a video material. In addition, feedback was given for the evaluation forms and worksheet that had been collected during the previous cycle, and new ones were prepared to be distributed to the students in the next cycle.

The Sixth Cycle: Student-Centered Strategies, Methods, and Techniques

The sixth cycle aimed to achieve the following learning outcomes: explain the general features of project based learning method; explain the general features of the station technique; and design a poster depicting the strong and weak aspects of learning strategies. Covering three lessons, the steps within this cycle are presented in Figure 6 below.

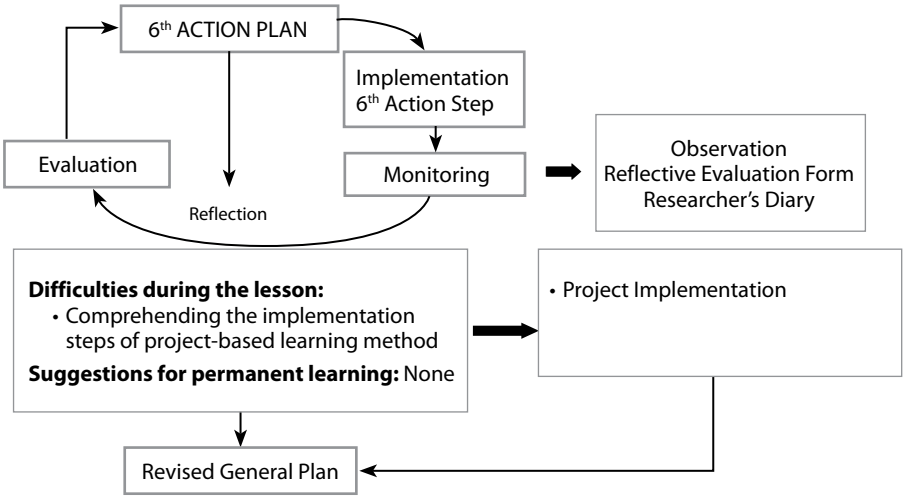

Figure 6. Steps within the sixth cycle

During the introduction of the cycle depicted in Figure 6, a video was shown about in-class implementation of the station technique in accordance with the reflections collected in the fifth cycle. Afterwards, the teacher-researcher provided more detailed information about the features of station technique, and a group activity was conducted regarding the use of this technique. In this activity, students prepared posters depicting the strong and weak aspects of expository, discovery, and inquiry learning strategies in three separate stations. Subsequently, the posters were presented by the station leaders.

In the second part of the lesson, teacher-researcher informed the students about the general properties of the project-based learning method, then the updated project implementation instructions were analyzed in terms of the steps of this method. Open-ended questions, in-class observations, and reflective evaluation forms were utilized for the evaluation of teaching.

The data obtained from reflective evaluation forms indicated that none of the 21 participants had had any kind of difficulty during the lesson. This may be attributed to the gradual increase of in-class activities since the beginning of the term. The fact that students mentioned station technique and its implementation as an interesting part of the lesson also supports this idea. One of the students expressed her/his relevant opinion as follows:

I had no difficulty in the lesson. We watched a video about station technique and then we applied that. It was so much fun to practice this technique … Everything I learned is really permanent for me (REF, 3 December 2014, SA).

Five participants were determined to have had comprehension problems concerning the steps of project-based learning method. Therefore, a decision was made to evaluate the project implementation, which is the basis for the following action plans, through association with the steps of project-based method, and then the seventh cycle commenced.

The Seventh Cycle: Reflection on and Evaluation of the Implementation

The seventh action plan lasted for nine lessons to achieve the following learning outcomes: prepare a lesson plan requiring the use of expository learning strategy and question-and-answer method; apply the lesson plan in real classroom setting; and evaluate the implementation via sharing the results in the class. The steps of the seventh cycle are displayed in Figure 7 below.

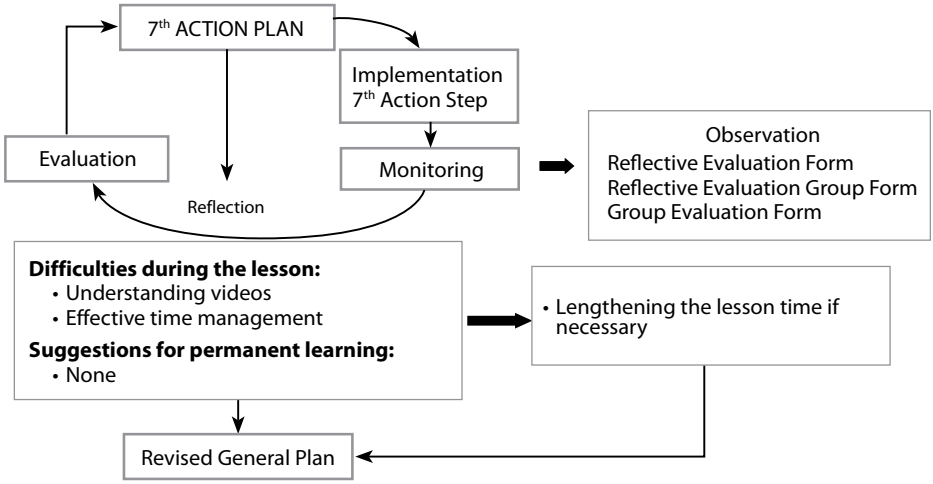

Figure 7. Steps within the seventh cycle

During the action process depicted in Figure 7, all groups preferred implementing the lesson plan requiring the use of expository learning strategy and question-and-answer method in the real classroom setting in accordance with the project instructions altered in the previous cycle. In this regard, implementations by seven groups were discussed and evaluated based on the grading score key in the classroom. Sharing the implementation process in the class, the groups filled out the "reflective evaluation group form" together. On the "Group Evaluation Form", the contribution of each group member was evaluated. Additionally, in-class observations and questions directed during the process were employed to judge in-class performance.

The data obtained from reflective evaluation forms pointed out that most students (f:19) had had no difficulties during the lesson, but two participants had gone through

hard times understanding the videos. However, it was not easy for the teacher-researcher either to manage the time efficiently since seven group implementations had to be evaluated. Written on December 17, 2014, the following excerpt from the researcher's diary summarizes the difficulties experienced by the researcher in this cycle:

> *Trying to use the time effectively while watching micro-teaching videos really wore me out. We watched and analyzed almost all the videos, but previously I had watched each video at least once to determine the transition points and pause breaks so as to collect their opinions. However, I was still worried if there was any significant point that I was missing. Moreover, some of the videos had poor quality and this made the process even more difficult (Researcher's Diary, 17 December 2014).*

The data obtained from reflective evaluation forms indicated that all, but two students, were satisfied with the activities. These two participants made some suggestions to improve the sound system. Since micro-teaching would not be employed in the next cycle, no steps were taken to improve either the videos or the sound quality, but a note was made to have a longer break during the lesson if necessary, and the eighth cycle began.

The Eighth Cycle: Planning and Evaluating the Instruction

The steps in the eighth cycle were designed to attain the following learning outcomes: prepare a lesson plan requiring the use of case study teaching method and discussion method; evaluate the lesson plan via sharing it in the classroom. Action process continued for six lessons on December 24 and 25, 2014. Figure 8 shows the steps within the eighth cycle.

As for the implementation of the eighth action plan, lesson plans prepared by seven groups were analyzed and evaluated. While doing this, groups presented the steps of their lesson plans to the class, the other groups evaluated the presented lesson plan by using the grading score key. Besides, the entire process was supported with question-and-answer activities and small group discussions. Reflective evaluation forms, in-class observations, and open-ended questions were employed to evaluate instruction. At the end of the process, students were given the final exam. January 5, 2015 as assigned as the due date for students to submit their portfolios containing the worksheets, assessment sheets that they had filled out during the process, homework assignments, and lesson plans and to answer the two questions asked for the final exam at their homes. Together with the final exam, students were also given three grading score keys to assess each question. In the first question of the final exam students were asked to discuss the relation among strategy, method, and technique by referring to the principles of effective teaching and by supporting their point with practical examples. The second question, on the other hand, required students to prepare an activity entailing the use of inquiry learning strategy, cooperative learning method, and station technique, and to develop

a lesson plan in which this activity would be used as part of an assignment that had been postponed till the end of the term based on the reflections collected at the end of the fifth cycle.

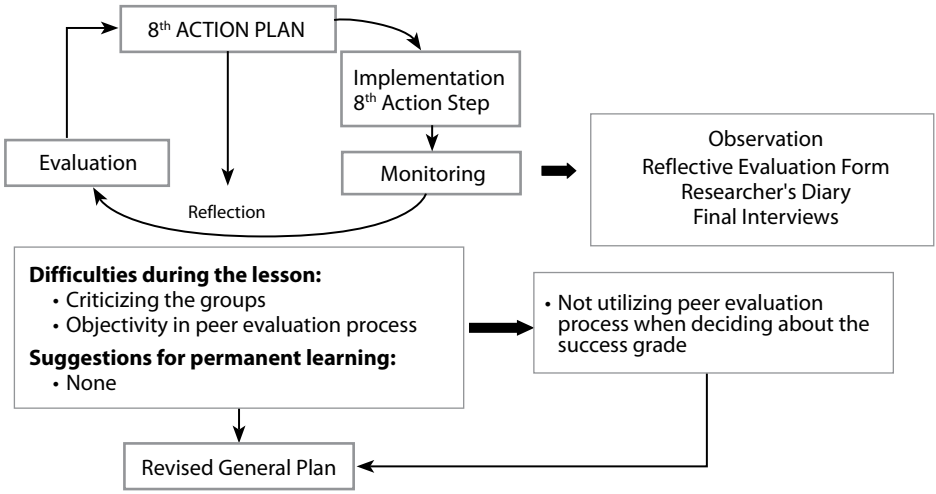

Figure 8. Steps within the eighth cycle

Within the scope of monitoring students' work, reflective evaluation forms and researcher's diary were employed, and final interviews were conducted with the focus group students. The data gathered through reflective evaluation forms indicated that some students (f:4) had difficulties criticizing the groups and some others (f:2) found it rather difficult to keep their objectivity during peer evaluation process. One of the focus group students stated that s/he had problems evaluating the groups within the limits of objectivity as follows:

> *It wasn't right that some of the groups carried their problems to the classroom. We should always be professional (REF, 25 December 2014, F9).*

A closer examination of suggestions made by the students for permanent learning indicates that 19 participants were satisfied with the lesson, and that no suggestion was stated by more than one participant. Written on December 25, 2014, the following excerpt from the researcher's diary summarizes this situation:

> *It was a smooth lesson for me… In the last lesson, I saw that the connection among planning, implementation, and evaluation was understood by the students, and that the distinction between the principles and functions of effective teaching were crystal clear for them... I believe that I've done my best and I've conducted instruction compatible with the goals and outcomes (Researcher's Diary, 25 December, 2014).*

Interviews held with focus group students at the end of the research process also pointed out that the goals had mostly been attained by the end of the eighth action plan and that no further changes were necessary to be made for this cycle:

> *I don't have a suggestion. As far as I'm concerned, you've done the best implementation possible for us. Each of us were active, we all had the chance for implementation, and we prepared activities. I think we've completed all the goals you assigned. We prepared the final assignment, went for practice, kept our portfolios, and set everything up (Final interview, 9 January 2015, F2, p. 17).*

Because some students stated that they had had difficulties criticizing the groups and preserving objectivity during peer evaluation process, a decision was made to ignore the grading score keys filled out by the groups while deciding on success and to exclude peer evaluation process in determining the level of success. Together with the termination of the eighth cycle, the action process was completed.

Evaluation of the Implementation Process

Across a 14-week action process, 14 lesson plans were developed for a total of 42 lessons. Action process was completed through implementation, monitoring, evaluation, reflection, and revising of eight action plans. At the beginning of this process, 38 learning outcomes and their relevant content had been defined. However, one learning outcome had to be eliminated, and one of the two practice activities that had been planned as in-class implementation was excluded based on the reflection activities carried out during the implementation process. In addition, implementation and evaluation studies concerning the learning outcome designated for the sixth cycle were postponed to the final week, and peer evaluation process devised for the seventh and eighth cycles was not employed to determine students' success. As for another aspect of the implementation process, modifications were made to increase the number of audio-visual components, to provide detailed explanations for weak and unclear points, to integrate these explanations into the strategies, methods, and techniques that were in use so as to contextualize the information, to reschedule the timetable of tasks, and to rearrange the seating layout in groups.

The curriculum for *Teaching principles and methods* course includes teaching and evaluating activities for 37 learning outcomes. Presentations prepared by the teacher-researcher and activities on the worksheets were employed during the learning-teaching process planned in accordance with the learning outcomes and content. The learning-teaching activities mentioned above include expository and discovery learning strategies, lectures, questions and answers, discussion, case study, cooperative learning, project-based learning and micro-teaching methods, and brainstorming, six-hat thinking, and station techniques. Students' success was determined via student portfolios consisting of worksheets, assessment sheets, and homework assignments they had completed during the process, project task and final exam. Eight-gradient scoring key, one group evaluation form, and one reflective evaluation form were employed to assess students' products. The observations recorded during the process and reflective evaluation forms administered at the end of each cycle constituted the remaining assessment tools utilized during measurement and evaluation process. With respect to students' success grade,

20% of their portfolio scores, 20% of their project scores, and 60% of their final exam scores were calculated for their average final grade. Corresponding letters of students' grades were determined in compliance with relative evaluation system.

Discussion and Conclusions

During the implementation process, problems were identified regarding lesson time, peer evaluation process, and seating layout, most of which were successfully eliminated before the process was over. In addition, further decisions were made to increase audio-visual elements, to provide detailed explanations about weak points, and to integrate these explanations into strategies, methods, and techniques used during the process so as to contextualize the information. However, no single problem directly influencing the implementation was detected regarding the content of the curriculum, the learning-teaching process, and measurement-evaluation process. Being the primary aspect of school-based curriculum development approach, school-specific needs analysis conducted at the beginning can be considered as a solid reason as to why no such problems emerged (Skilbeck, 1984), since the basic difference between this approach and others is that content and learning experiences can be localized more via school-specific needs analysis (Wright & Johnson, 2000). In this research, prior to the implementation process, the needs for this curriculum were determined via a school-based approach - school-specific needs analysis (Yeşilpınar-Uyar, 2016), and individual characteristics, structural features, and students' needs were identified in detail. These results indicate that school-based curriculum development approach is an effective model in terms of taking students' needs and contextual features into account.

Yet, it is of great importance to discuss some of the problems encountered during the process with respect to the future implementation of the curriculum. The first of these problems is that some of the learning outcomes had to be modified due to the time allocated for the course. Before the action research started, 38 learning outcomes and their relevant content had been identified. However, one of the outcomes had to be excluded, and one of the two practice activities that had been planned for in-class setting had to be eliminated based on the results of reflection efforts during the process. A closer examination of students' opinions leading to such a change in the process indicates that participants had time management issues with group activities and homework assignments, and that they mostly underlined that the lessons were long and the content was dense. In their study on instructional planning and evaluation course, Çelik and Önal (2005) concluded that faculty members and students thought the course content was too comprehensive, class time was not sufficient, and the course should be re-planned across a few terms, all of which are consistent with the results of the present study. Based on the results of needs analysis administered before the study, the coverage of the content was reduced by excluding basic concepts in education and learning-teaching strategies, models, and approaches from the content, and the content was restricted in terms of goals and their classification, the steps and principles of effective

teaching, and in terms of strategies, methods, and techniques that are widely in use. In addition, the process was supported within and outside class activities. Although the coverage of the content was reduced and hands-on tasks were emphasized, the fact that one of the outcomes had to be eliminated indicates that class time should be lengthened in order to enhance the efficacy of practical activities.

Another problem experienced during the process was related to group seating layout. In this research, adopting a school-based curriculum development approach, firstly the available conditions were identified, and arrangements were carried out to improve those conditions during the process. Among these arrangements, there was a new seating layout that would allow the students and the teacher-researcher to move around more freely and to communicate more easily. However, it was only possible to arrange the class in a U shape seating layout because of the available conditions of the school. This was directly related to the insufficient infrastructure and physical restrictions of the education facility. The class was not appropriate for seven different groups to study effectively due to the setting and size. Several studies on school-based curriculum development practices (Akrom, 2015; Maphosa & Mutopa, 2012; Özyurt, 2015; Zeegers, 2012) concluded that a lack of physical opportunities, as well as insufficient time and sources, was another problem impeding school-based innovations, which is also parallel to the results of the current study, just like those relating to class time and seating layout. For this reason, it is significant to provide physical environments conducive to efficient use of instructional methods.

In other research efforts on school-based practice, one of the main problems negatively influencing school-based curriculum development endeavors was lack of knowledge, skills, experience, and enthusiasm on part of the teachers who undertook the responsibility to develop the curriculum (Akrom, 2015; Li, 2006; Maphosa & Mutopa; 2012; Zeegers, 2012). Yet, no such problem was identified for the present study - implementation of school-based approach at a higher education level. A possible reason as to why such a problem was not encountered during the present study may be that the teacher-researcher is an expert on curriculum and instruction, and that she effectively employed her knowledge, skills, and experience distilled from her observations in *Teaching principles and methods* course and from her studies on different aspects of education. Another reason might be that integrating action research with curriculum-development process allowed one of the researchers to be the teacher and to reflect her/his knowledge, skills, and experience s/he gained along the process on the implementation and evaluation phases. It is known that using action research during the teaching process makes it possible to merge the role of a teacher with the standpoint of a researcher, and this makes finding solutions to the emerging problems easier (Yıldırım & Şimşek, 2008). Another problem encountered during the action research process was the difficulty to functionally employ peer evaluation process. Relevant macroanalyses revealed that groups had troubles in criticizing and keeping objectivity. In accordance with solution suggestions based on the analyses, a decision was made to neglect peer evaluation process during the instructional evaluation because of the fact that students

did not have enough knowledge, skills, and experience in terms of peer evaluation. This decision was based on the scientific grounds and supported by various research results. In this research, in the implementation of peer evaluation process at higher education level it was found that the average peer evaluation scores were either lower or higher than those given by the teacher (Lin, Liu, & Yuan, 2001; Orsmond, Merry, & Reiling, 1996; Şahin, 2008; Stefani, 1992), that students were reluctant to criticize their peers (Lin, Liu, & Yuan, 2001), that students' feedback was not honest (Macleod, 1999), and that students did not understand that the aim of grading was to improve their critical judgement and self-evaluation skills (Davies, 2002). The results of these evaluations based on a set of criteria point out that higher education students lack the necessary knowledge, skills, attitudes, and experience to conduct a proper peer evaluation process (Cheng & Warren, 2005; Lin, Liu, & Yuan, 2001; Stefani, 1992). Accordingly, one can suggest that pre-service teachers' attitudes, knowledge, skills, and experience should be enhanced via different courses they take during teacher education. Besides, the fact that the teacher-researcher was an expert in curriculum development and teaching helped tremendously in solving the problems related to teaching in scientific ways.

Another finding obtained in this research indicates that most problems were tackled in the action research process so that the difficulties that students had during the course decreased while the number of participants who found the implementations satisfactory increased and this number reached the maximum level by the end of the implementation. The increase in the amount of practical activities after the fourth cycle can be noted as a possible reason for this. Various other studies supporting this view also conclude that practical exercises requiring students' active participation and including micro-teaching contribute positively to pre-service teachers' knowledge, skills, attitudes, and competences (Aremu & Salami, 2013; Caires & Almeida, 2005; Gibson & Van Strat, 2000; Minger & Simpson, 2006; Molina, Fernandez, & Nisbet, 2013; Ralph, 2014; Strawitz & Malone, 1984; Talsma, 1996). Therefore, it is possible to state that increasing practical activities helps contextualize information and influences the implementation process positively, which in return lessens the difficulties in the process and improves the quality of teaching.

In conclusion, the problems experienced during the implementation process were mostly related to the fact that the time allocated for the course was not enough to achieve all the learning outcomes within the draft guidelines that shaped the action plans, that peer evaluation process did not work properly, and that group seating layout was not appropriate. However, most of these were tackled through changes within the action research process itself.

All these results indicate that there is a need to make structural changes in pre-service teacher education curriculum to lengthen the course time for *Teaching principles and methods* course and to enhance pre-service teachers' knowledge, skills, and attitudes regarding the components of curriculum and peer evaluation process. In addition, further action research studies can be conducted to develop and evaluate the curricula

of courses studied at other faculties in accordance with the needs analysis at higher education.

As a follow-up study, the curriculum developed during the implementation will be evaluated through the use of participant evaluation model. This follow-up research is expected to produce solid data which will help determine how well the curriculum meets the students' needs, what contributions there are for the students, and how applicable it is.

Acknowledgement

This study is a part of Melis Yeşilpınar Uyar's doctoral dissertation supported by Çukurova University Scientific Research Projects grant number SDK-2014-2678.

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Izrada školskog kurikula za kolegij *Nastavna načela i metode*

Sažetak

Cilj je ovog istraživanja izraditi školski kurikul za kolegij Nastavna načela i metode primjenom dizajna akcijskog istraživanja. U tom kontekstu provedba istraživanja trajala je 14 tjedana, a u njemu je sudjelovalo 36 studenata druge godine Učiteljskog fakulteta Državnog sveučilišta, smjera Razredna nastava, koji su pohađali kolegij Nastavna načela i metode u zimskom semestru akademske godine 2014./2015. Promatranje, intervju i analiza dokumenata koristili su se za prikupljanje podataka. Na temelju rezultata uočeno je da su problemi koji su se pojavili u procesu provedbe uglavnom povezani s nedovoljnom količinom vremena planiranog za kolegij kako bi se ostvarili svi ishodi navedeni u smjernicama koje su određivale akcijski plan, funkcionalnu provedbu kolegijalne evaluacije i raspored sjedenja za vrijeme nastave. Većina tih problema spomenuta je tijekom akcijskog istraživanja, pa je umanjen broj poteškoća s kojima su se studenti susretali tijekom kolegija, a broj se sudionika koji su smatrali da je njegova provedba zadovoljavajuća povećao.

Ključne riječi: *akcijsko istraživanje; izobrazba nastavnika; kolegij Nastavna načela i metode; razvoj školskog kurikula.*

Uvod

U glavnim ciljevima kurikula za bilo koju razinu obrazovanja kao zajednički cilj ističe se: obrazovati pojedince koji mogu razmišljati na znanstveni način dok usvajaju bilo koju vrstu znanja, koji s kritičkog stajališta propituju ono što uče, koji posjeduju vještine rješavanja problema (IBE [International Bureau of Education], 1998). Međutim, ono što treba uzeti u obzir u tom procesu jest pitanje je li uopće moguće opremiti učenike znanjima i vještinama navedenima u kurikulu jednako uspješno u svim školama, jer se struktura nastavnih planova i programa, mjesto, organizacijske mogućnosti, financijski resursi, karakteristike nastavnika, zajednica, pa i sami učenici, uvelike razlikuju (Lewy, 1991; Ringwalt, Ennett, Vincus, i Simons-Rudolph, 2004; Yüksel, 1998). To nameće potrebu da se u obzir uzmu i regionalne i kulturološke razlike pri planiranju i provedbi kurikula (Bümen, 2006), čime se iz dana u dan sve više naglašava važnost izrade „školskog kurikula" (Marsh, Christopher, Lynne, i Gail, 1990; Priestly, Minty, i Eager, 2013).

Sam pojam školskog kurikula podrazumijeva da sve odluke koje su povezane s obrazovanjem treba donositi sama škola (Marsh i sur., 1990). Slično tome, razvoj školskog kurikula, što je fokus ovog istraživanja, podrazumijeva da je kurikul planiran,

izrađen i proveden od strane škole koju učenici pohađaju (Skilbeck, 1984, str. 2). Navodi se da bi proces izrade školskog kurikula mogao uključivati aktivnosti poput prilagodbe postojećem kurikulu, prihvaćanja njegovih konstantnih odrednica ili izradu potpuno novog kurikula (Bezzina, 1991, citirano u: Bolstad, 2004). Lewy (1991) je naveo da taj proces, koji naziva razvojnom aktivnošću, zahtijeva odabir nastavnih materijala, ispravak nedostataka postojećeg kurikula, prilagodbu lokalnim potrebama i aktivnostima te izradu jedne cjeline ili modula novog kurikula. Može se uočiti da različiti istraživači objašnjavaju proces izrade školskog kurikula koristeći se mnogim varijablama kao dodatkom onim aktivnostima koje bi se odrađivale tijekom provedbe toga procesa. Na primjer, Brady (1978) je objasnio dvanaest različitih vrsta izrade školskog kurikula koristeći se klasifikacijskim sustavom utemeljenim na vrstama aktivnosti (izrada, prilagodba i odabir kurikula itd.) i sudionicima (nastavnici, skupine nastavnika, cijela škola itd.) (citirano u: Bolstad, 2004). Marsh i suradnici (1990) definirali su proces izrade školskog kurikula u trodimenzionalnom obliku, dodajući vremenski faktor (jedna aktivnost, kratkoročni, srednje dugi i dugoročni plan) tom procesu.

Uočeno je da koraci kroz koje se prolazi u svakom procesu izrade školskog kurikula nisu bitno drugačiji od onih kroz koje se prolazi u procesu izrade kurikula općenito – počinje se analizom potreba, a završava procesom evaluacije (Skilbeck, 1984). Temeljna je razlika koja čini taj proces drugačijim od procesa izrade drugih kurikula prilagodba lokalno bitnoj vrsti sadržaja i iskustvu učenja (Wright i Johnson, 2000). U tom bi se kontekstu trebala provesti analiza potreba kako bi se odredile potrebe i očekivanja škole i svih bitnih dionika, a osobe koje su detaljno upoznate s kulturom i potrebama škole trebale bi biti izabrane u povjerenstvo za izradu školskog kurikula (Özyurt, 2015). Izrada školskog kurikula uključuje selekciju, prilagodbu i stvaranje kurikula, pa se zbog toga smatra da je to proces koji ovisi o sudionicima i vremenskim ograničenjima plana te da se također sastoji i od stalnog procjenjivanja uspješnosti i donošenja odluka (Bolstad, 2004; Marsh i sur., 1990).

U zemljama poput Engleske, Australije i Izraela, gdje je izrada školskog kurikula uobičajen proces, pokazalo se da takav model ima pozitivan učinak i da pomaže učenicima u ostvarivanju etičkih i filozofskih ishoda, a u isto vrijeme održava pedagošku i ekonomsku autonomiju (Ben-Peretz i Dor, 1986), odgovara potrebama učenika, institucija i regija (Bezzina, 1991, citirano u: Bolstad, 2004; Day, 1990; Priestly i sur., 2013), povećava svijest osoblja o važnosti kurikula (Bezzina, 1991, citirano u: Bolstad, 2004) te potiče nastavnike na sudjelovanje u procesu izrade kurikula (Keiny, 1993; Özyurt, 2015; Priestly i sur., 2013). Pristup izradi školskog kurikula u posljednje je vrijeme prihvaćen i prevladava i u nekim drugim zemljama u kojima postoji nacionalni obrazovni sustav (poput SAD-a, Kanade i Australije), gdje škole imaju veću autonomiju usprkos činjenici da podliježu državnom nadzoru (Yüksel, 1998). K tomu, postoji i tendencija izrade školskih kurikula i u zemljama s centraliziranim obrazovnim sustavom, poput Hong Konga, Kine i Bangladeša, na način da se školama dodijeli veća odgovornost za izradu kurikula (Chun, 1999; Gopinathan i Deng, 2006; Li, 2006; Power i sur., 2012).

Relevantna međunarodna literatura ukazuje na činjenicu da su istraživanja provedena o izradi i evaluaciji kurikula ujedno proučavala i školsku praksu u tom području u osnovnom i srednjoškolskom obrazovanju, kao i kurikul za izobrazbu nastavnika koji već rade u sustavu (Chun, 2006; Juang, Liu i Chan, 2008; Keiny, 1993; Law, 2001; Li, 2006; Maphosa i Mutopa, 2012; Nutravong, 2002; Prestley, Minty, i Eager, 2013; Shawer, 2010; Xu, 2009). Kako postoji pristup od vrha prema dolje s obzirom na izradu kurikula za osnovnoškolsko i srednjoškolsko obrazovanje (Turkey Official Gazette, 2014, 28941 S. K.), u Turskoj postoji samo jedno relevantno istraživanje koje je provedeno u tom području. U tom je istraživanju analizirana učinkovitost izrade školskog kurikula s obzirom na izradu kvalitetnog obrazovnog kurikula za učenike privatne osnovne škole (Özyurt, 2015).

Očito je da je visoko obrazovanje jedno od područja za koje je potrebno provesti istraživanje o izradi posebnog, „školskog kurikula" (Colet i Durang, 2004; Mentkowski i sur., 2002; Wolf, 2007). Što se tiče Turske, za razliku od osnovnoškolskih i srednjoškolskih kurikula, kurikuli na sveučilištima za izobrazbu nastavnika (Council of Higher Education [CHE], 2007) dopuštaju izradu zasebnih, „školskih kurikula", zahvaljujući inovacijama predviđenima Bolonjskim procesom (Colet i Durand, 2004; Eurydice, 2006).

Programi za izobrazbu osnovnoškolskih nastavnika jedan su tip kurikula za izobrazbu budućih nastavnika koji bi trebao imati prioritet u smislu reforme, jer znanja i vještine koje učenici stječu u osnovnoškolskom obrazovanju služe kao osnova za više razine obrazovanja. Stoga se osnovnoškolsko obrazovanje smatra jednim od ključnih koraka u obrazovanju (Sağlam, Özüdoğru, i Çıray, 2011). Ciljevi i sadržaj usmjereni razvijanju vještina kod učenika, umjesto pukog ulijevanja informacija u njih, glavne su inovacije u području obrazovanja. Međutim, podatci prikazani u izvješću UNESCO-a (UNESCO Monitoring Report, 2013) pokazuju da jedna trećina djece školske dobi ne može steći osnovne vještine ni kroz školu, ni mimo nje, što naglašava važnost poboljšanja profesionalnih vještina učitelja razredne nastave. Time se također ističe i koliko su važni kolegiji u kojima se razvija stručno i metodičko znanje nastavnika. Posljednje promjene i prilagodbe tih kolegija provedene su 2006. godine (CHE, 2007). Međutim, ne može se tvrditi da su svi problemi vezani uz kurikul i njegovu provedbu riješeni tim promjenama (Ceylan i Demirkaya, 2006; Kara i Sağlam, 2014; Kumral, 2010; Kurt i Ekici, 2013; World Bank, 2011). Stoga stručnjaci napominju da se nove promjene trebaju provesti u strukturi kolegija za stjecanje stručnih znanja nastavnika, kako bi se povećala odgovornost učenika i kako bi im se ponudilo više mogućnosti za razvoj (Kurt i Ekici, 2013; Lewy, 1991; Mangali i Hamdan, 2015; Power i sur., 2012). Osim toga, preporuka je da se školski pristup izradi kurikula uključi u sve kurikule putem sustavnih promjena svih aspekata izobrazbe nastavnika, od predškolskog obrazovanja do profesionalnog razvoja nastavnika koji već rade u školama (Mangali i Hamdan, 2015; Westbury, Hansen, Kansanen i Björkvist, 2005). Većina profesionalnih karakteristika koje bi nastavnici trebali imati vrti se oko procesa učenja i poučavanja, a imaju za cilj osposobiti buduće nastavnike da prema profesionalnim standardima planiraju i izvode nastavu (CHE, 1999). *Nastavna načela i metode* jedan je od kolegija u kojima se studentima pružaju stručna znanja s ciljem razvoja spomenutih profesionalnih osobina u njima.

Cilj istraživanja

Provedeno je preliminarno istraživanje u skladu sa spomenutim potrebama koje se koristilo za provedbu analize potreba u ovom kolegiju (Yeşilpınar-Uyar, 2016). Pripremljen je nacrt smjernica kako bi se opisali ciljevi, ishodi učenja i sadržaj kolegija *Nastavna načela i metode*. Ovo istraživanje ima za cilj poboljšati nacrt smjernica primjenom školskog pristupa izradi kurikula te dovršiti kurikul za kolegij *Nastavna načela i metode*. U skladu s tim ciljem postavljena su sljedeća pitanja istraživanja:

- Koji se problemi javljaju u procesu provedbe?
- Koji su postupci reorganizacije potrebni za rješavanje tih problema?

Svi koraci procesa izrade kurikula u kojima se odražava školski pristup definirani su i strukturirani u skladu s kontekstualnim karakteristikama i potrebama budućih nastavnika. Nadalje, sadržaj kolegija *Nastavna načela i metode* obuhvaća područja pogodna za primjenu školskog pristupa izradi kurikula. Stoga se smatra da je ovo istraživanje važno jer se bavi poboljšanjem potreba budućih nastavnika s obzirom na stručna znanja i vještine. Nadamo se da će budući nastavnici steći nekakav uvid u cijeli proces na kraju istraživanja, što će im pomoći u radu nakon završetka studija.

Metode

Model istraživanja

Ovo istraživanje osmišljeno je kao akcijsko istraživanje, jedno od kvalitativnih metoda istraživanja. Cijeli proces istraživanja temeljio se na ciklusima akcijskog istraživanja koje su predložili Kemmis, McTaggart i Nixon (2013), a koji uključuju planiranje, akciju, promatranje, praćenje i refleksiju. Za ovo istraživanje odabran je poseban tip akcijskog istraživanja, s pristupom u kojem je nastavnik također i istraživač. Akcijski dio istraživanja trajao je 14 tjedana i obuhvatio je ukupno 42 sata nastave. U postupku integriranja akcijskog istraživanja i izrade kurikula, pripreme za nastavni sat služile su kao podloga za svaki akcijski plan. Za izradu odgovarajućih planova koristio se proces planiranja objašnjen u knjizi koju su napisali McTighe i Wiggins, „Razumijevanje po dizajnu" (1999).

Sudionici

Skupina sudionika u istraživanju sastojala se od istraživača koji su izradili kurikul tijekom provedbe istraživanja i 36 studenata druge godine koji su odabrani metodom prigodnog uzorkovanja i koji su upisali kolegij *Nastavna načela i metode* na Učiteljskom fakultetu Državnog sveučilišta, Odsjek za razrednu nastavu, u zimskom semestru akademske godine 2014./2015.

U sredini i na kraju procesa provedbe istraživanja provedeni su intervjui s fokusnom grupom od 14 studenata. Što se tiče odabira tih studenata, kriteriji su bili: različiti stupnjevi akademskog uspjeha i sudjelovanje na nastavi, a dobrovoljno sudjelovanje u intervjuima bilo je obvezno. Od tih 14 studenata 11 je bilo ženskog, a 3 muškog spola.

Distribucija njihovih prosječnih ocjena bila je: 4 studenta imala su prosjek između 2,01 i 2,50; 4 studenta imala su prosjek između 2,51 i 3,00; 4 studenta imala su prosjek između 3,01 i 3,50, a jedan je student imao prosjek između 3,51 i 4,00.

Prikupljanje i analiza podataka

Za prikupljanje podataka koristila su se promatranja, intervjui i analiza dokumenata. Cilj promatranja bio je opisati proces provedbe i sudjelovanje studenata u tom procesu. Kada se primjenjivao nestrukturirani opservacijski model, nisu se koristili standardni alati za promatranje, no za prikupljanje podataka koristile su se relevantne bilješke vođene tijekom provedbe i dnevnici popunjeni nakon provedbe procesa. Sve aktivnosti koje su se vodile unutar učionice snimane su videokamerom. Bilješke u dnevniku bile su nestrukturirane. Podatci dobiveni putem tih dnevnika uključuju promatranje i evaluaciju nastavnika-istraživača u vezi s provedbom istraživanja, kao i njihove refleksije o sljedećem akcijskom planu koji je rezultat te evaluacije. Za analizu podataka koristila se metoda deduktivne analize sadržaja u području makroanalize. Dvije kategorije, „poteškoće tijekom nastave" i „prijedlozi za permanentno učenje", bile su u fokusu ovog procesa.

Dva polustrukturirana intervjua pripremljena u skladu s mišljenjima stručnjaka koristila su se u sredini i na kraju procesa. Cilj je tih intervjua bio odrediti iskustva koja se ne mogu opaziti, kao i dojmove i stavove studenata o procesu provedbe. Što se tiče analize dokumenata, na kraju svakog ciklusa koristili su se listovi za refleksivnu evaluaciju koje su studenti popunjavali, zajedno s radnim listovima i ocjenjivačkim listićima koji su studentima podijeljeni tijekom nastave.

Što se tiče analize podataka prikupljenih tijekom provedbe, korististile su se makroanalize koje su bile popraćene konstantnom komparativnom analizom (Glaser i Strauss, 1967). Makroanalize su imale za cilj odrediti probleme koji su se javljali tijekom provedbe i pronaći odgovarajuća rješenja za njih.

U sklopu provjere pouzdanosti i valjanosti podataka, prikupljeni su dubinski podatci i provedeno je konstantno promatranje (42 nastavna sata) tako što se dugo koristilo okruženje istraživanja. Podatci i metode mijenjali su se tijekom promatranja, intervjua i analize dokumenata, u skladu s predloženim strategijama (Brantlinger, Jimenez, Klingner, Pugach, i Richardson, 2005; Glaser i Strauss, 1967; Guba, 1981; Patton, 2002; Yıldırım i Şimşek, 2008). K tomu, rezultati dobiveni analizom podataka opisani su bez interpretacije i potkrijepljeni su izravnim citatima i vizualnim materijalima. U tom smislu koristili su se neki kodovi kao što su F1 i F2 za studente iz fokusne grupe, a inicijali AB i HA za ostale studente. Izvor podataka i odgovarajući datum navedeni su na kraju svakog citata. Osim toga, stručnjaci su potvrdili sve podatke i rezultate.

Rezultati

Analiza trenutnog stanja

U skladu s rezultatima analize potreba (Yeşilpınar-Uyar, 2016) određeni su prvi ciljevi kurikula, a tada su zapisani i ishodi učenja. Tijekom procesa zapisivanja i klasifikacije ishoda učenja pratila se osnovna struktura koju su objasnili Posner

i Rudnitsky (2006). U skladu s tim ishodi učenja klasificirani su kao kognitivno razumijevanje, afektivno razumijevanje, kognitivne vještine, afektivne vještine i psihomotoričke perceptivne vještine.

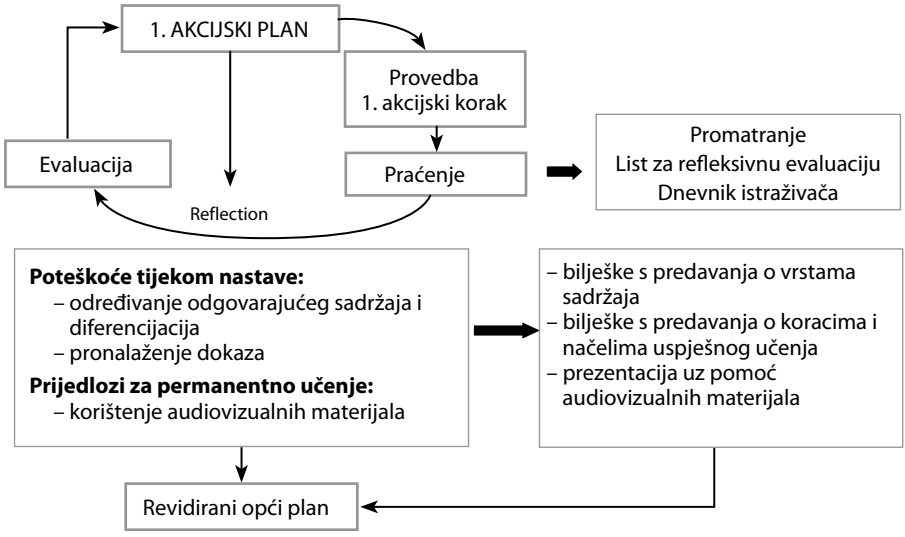
Što se tiče odabira sadržaja, s druge pak strane, u obzir su uzeti udžbenici o nastavnim načelima i metodama (Doğanay, 2009; Ekici i Güven, 2013; Sönmez, 2008), strategije, tehnike i metode predložene tijekom analize potreba, faktori koji utječu na uspjeh učenika (Walberg, 1984, citirano u: Ornstein, Pajak, i Ornstein, 2007) i strategije koje poboljšavaju uspjeh učenika (Brown i Atkins, 1988; Marzano, Pickering i Pollock, 2001). Za organizaciju sadržaja primijenjen je model organizacije sadržaja po modulima. Najprije je pripremljen nacrt smjernica koji je uključivao opće ciljeve, ishode učenja i raspodjelu tema tijekom tjedana, kako bi se odredio smjer cijelog procesa izrade kurikula. Izrađen je prvi akcijski plan u skladu s nacrtom smjernica.

Proces provedbe

Izrada kurikula dovršena je tijekom provedbe, praćenja, evaluacije i refleksije osam akcijskih planova koji su izrađeni tijekom cjelokupnog procesa. Rezultati toga objašnjeni su i prikazani na način koji obuhvaća svaki ciklus. Podatci prikupljeni promatranjem, relevantnim dokumentima i intervjuima koristili su se za objašnjenje tog procesa.

Prvi ciklus: ciljevi i njihova klasifikacija, vrste sadržaja

Prvi akcijski plan trajao je šest nastavnih sati i bio je osmišljen tako da se ostvare sljedeći ishodi učenja: objasniti pojam cilja, objasniti vrste ciljeva, klasificirati dani primjer ishoda učenja na razini razumijevanja i vještina, objasniti vrste sadržaja i odrediti odgovarajući sadržaj u skladu s ishodom. Slika 1 je shema svih koraka kroz koje se moralo proći u prvom ciklusu.



Slika 1 Koraci prvog ciklusa

U procesu koji se može vidjeti na slici 1 koristio se radni list s temom klasifikacije vrsta ciljeva u smislu razina razumijevanja i vještina, kao i još jedan radni list s temom odabira vrste sadržaja koja odgovara ishodu klasificiranom s obzirom na razinu razumijevanja i vještina. Pitanja otvorenog tipa, promatranje i refleksivna evaluacija koristili su se za mjerenja i evaluaciju. Osim toga, studentima je podijeljen evaluacijski list koji je pripremljen kako bi se izradila matrica s ciljem i sadržajem, u vezi s odlukom o razinama prije danih primjera ishoda i uz odabir vrsta sadržaja u skladu s ishodima učenja.

Promatranja tijekom provedbe, listovi za refleksivnu evaluaciju i dnevnik koji je vodio istraživač upućuju na to da su studenti imali poteškoća pri odabiru odgovarajuće vrste sadržaja (f:8) i pronalaženja dokaza (f:5). Prijedlozi o upotrebi audiovizualnih materijala (f:4) i dijeljenja bilješki s predavanja (f:3) izdvojeni su i grupirani kao oni koji mogu voditi permanentnom učenju.

Na temelju prepoznatih problema i relevantnih prijedloga donesene su odluke o sljedećem akcijskom planu da bi se studente bolje informiralo o tome kako bi trebali pisati dokaze tijekom uvoda u kolegij, kako pripremiti bilješke s predavanja o sadržaju svih akcijskih planova, kako odrediti vrijeme predviđeno za intervju da bi se razjasnile bilo kakve nejasnoće i kako povećati količinu audiovizualnih materijala. K tomu, dopunjavanje informacija koje nedostaju o vrsti sadržaja u kombinaciji s ciljevima drugih ciklusa smatralo se učinkovitijim za smisleno učenje. Dobivena je i povratna informacija o radnim listovima i listovima za procjenu, pa su ti listovi pripremljeni kako bi se podijelili studentima i na početku sljedećeg ciklusa.

Intervjui provedeni na kraju semestra pokazali su da su ponovno vraćanje na temu vrsta sadržaja u kombinaciji sa sadržajem koji se obrađivao u drugim ciklusima i odgovarajuća povratna informacija dobro djelovali na eliminaciju nekih problema. Jedan od studenata iz fokusne grupe naveo je sljedeće o važnosti povratne informacije:

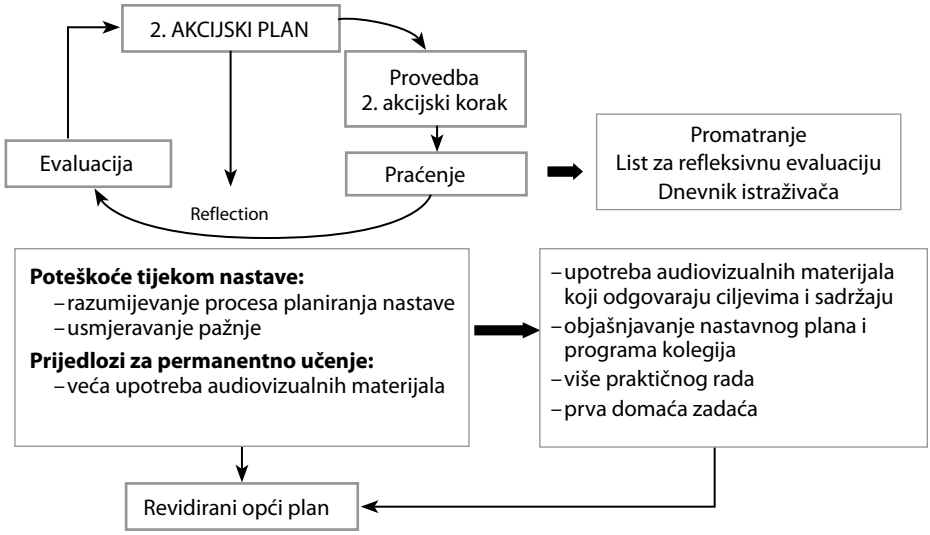
> *U početku su mi vrste ciljeva i sadržaja bile potpuno zbunjujuće. Onda sam sjeo i ponovno zapisao vrste sadržaja. Nakon što ste nam podijelili matricu, shvatio sam gdje sam pogriješio. To je bilo dobro. (Intervju proveden na kraju semestra, F11, str. 10).*

Drugi ciklus: Koraci i načela uspješnog poučavanja

Drugi akcijski plan trajao je tri nastavna sata kako bi se ostvarili sljedeći ishodi učenja: primijetiti da razmatranje individualnih razlika tijekom procesa učenja i poučavanja značajno doprinosi profesionalnoj praksi; objasniti osnovne korake učinkovitog nastavnog procesa; objasniti primarna načela o kojima treba voditi računa tijekom nastavnog procesa i predložiti rješenja za probleme koji se javljaju u razredu kao rezultat individualnih razlika, a koja su u skladu s nastavnim načelima. Slika 2 pokazuje korake koji su definirani u drugom ciklusu.

Tijekom akcijskog procesa koji se može vidjeti na slici 2, radni list s temom analize slučaja koristio se nakon što su se prezentirale važne informacije o sadržaju. Pitanja otvorenog tipa, promatranje i listovi za refleksivnu evaluaciju koristili su se tijekom

mjerenja i procesa evaluacije. Uz to, koristio se još jedan radni list za analizu slučaja, kako bi se odredila nastavna načela primijenjena u toj analizi slučaja te objasnili drugi oblici nastavne prakse koji se koriste istim načelima.



Slika 2 Koraci drugog ciklusa

Kao dio reorganizacije potrebne za povećanje količine audiovizualnih materijala u drugom akcijskom planu, prikazan je tematski videozapis tijekom nastavnog sata, a neki vizualni materijali koji su sadržavali teme koje će se obrađivati tijekom semestra bili su postavljeni na pano u učionici. Podatci dobiveni praćenjem rada studenata pokazali su da su studenti imali poteškoća pri „razumijevanju procesa planiranja nastave" (f:4) i „usmjeravanja pažnje" (f:4). Nastavni planovi i programi izrađeni za kolegij za vrijeme uvodnih predavanja poslužili su za pripreme za nastavu, kako bi se studentima pomoglo povećati stupanj znanja i steći bolji uvid u proces planiranja nastave. Nadalje, studenti su za domaću zadaću dobili zadatak pripremiti neke aktivnosti koje su dio nastavne pripreme. Međutim, zbog problema koje su studenti imali s usmjeravanjem pažnje, trebalo je provesti reorganizaciju s ciljem povećanja njihova sudjelovanja u procesu.

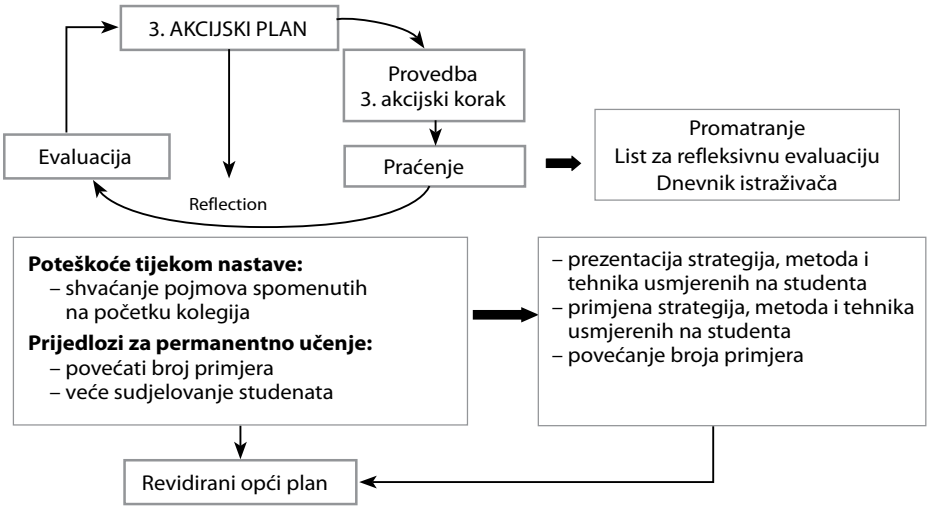
Podatci dobiveni u istraživanju pokazali su da je „upotrebu većeg broja audiovizualnih materijala" (f:10) navelo više sudionika kao vlastite prijedloge za postizanje permanentnog učenja. Važno je spomenuti da je takav prijedlog dalo više studenata otkako su u drugom ciklusu dodani videomaterijali i vizualni elementi na temelju refleksija o prvom ciklusu. To se može protumačiti kao znak koji pokazuje da su studenti smatrali da su vizualni materijali upotrijebljeni u toj fazi bili iznimno dobri, pa su se njima željeli češće koristiti. Podatci dobiveni s pomoću listova za refleksivnu evaluaciju mogu ići u prilog takvoj interpretaciji.

> *Današnji je video bio jako dobar, jako mi se svidio. Također volim gledati filmove i to me motivira da pažljivije gledam videoprimjere o nastavnoj temi. Moglo bi se u nastavu uključiti i više videomaterijala (REF, 22. listopada, 2014, F11).*

Na temelju svega toga donesena je odluka da se uvede više audiovizualnih elemenata u skladu s ishodima i sadržajem te da se započnu praktične aktivnosti koje su navedene u nacrtu smjernica, kako se proces polako približavao trećem ciklusu.

Treći ciklus: nastavne strategije, metode i tehnike

Treći akcijski plan trajao je tri nastavna sata s ciljem ostvarivanja sljedećih ishoda: objasniti opće karakteristike ekspozitorne strategije učenja, objasniti opće karakteristike metode predavanja, uočiti razlike između ekspozitorne strategije učenja i metode predavanja, objasniti opće karakteristike metode pitanja i odgovora, pripremiti aktivnost koja uključuje strategiju ekspozitornog učenja i metodu pitanja i odgovora. Slika 3 daje pregled koraka u sklopu trećeg ciklusa.



Slika 3 Koraci trećeg ciklusa

Akcijski postupak opisan na slici 3 započeo je prezentacijom važnih informacija o sadržaju, a studentima je pruženo više prilika za vježbu kako bi im se pomoglo da uklone poteškoće s usmjeravanjem pažnje. U vezi s tim demonstrirane su „strategije, metode i tehnike". Koristio se i radni list s temom provedbe ispita i analize primjera aktivnosti koja uključuje ekspozitornu strategiju učenja, pitanja i odgovore te metodu predavanja, a studente se poučavalo o strategijama, metodama i tehnikama unutar opsega odgovarajućeg sadržaja. Prezentacija je također bila obogaćena i vizualnim materijalima. Pitanja otvorenog tipa, promatranje i refleksivna evaluacija koristile su se u procesu mjerenja i evaluacije. K tomu, studenti su dobili zadaću s bodovnom listom za ocjenjivanje kako bi pripremili aktivnost koja zahtijeva primjenu ekspozitorne strategije učenja i metodu pitanja i odgovora. Rok za predaju zadaće određen je za kraj semestra kako bi studenti imali dovoljno vremena pripremiti i popraviti svoj rad.

Studenti su naveli da su imali poteškoća (f:6) pri razumijevanju novih pojmova uvedenih početkom ovog ciklusa. Međutim, taj je problem pripisan činjenici da se prije

nisu susreli s tim pojmovima i činilo se da su tom problemu pristupili i riješili ga uz pomoć radnih listova tijekom samog procesa. Jedan je student o tome rekao sljedeće:

> *Imao sam problema s usmjeravanjem pažnje na početku nastavnog sata. Mislio sam da su pojmovi jako komplicirani kada sam prvi put čuo za njih. Međutim, uspio sam razumjeti nastavni sat tako što sam pratio radni list koji nam je tijekom tog nastavnog sata uručen (REF, 5. studenoga 2014., SA).*

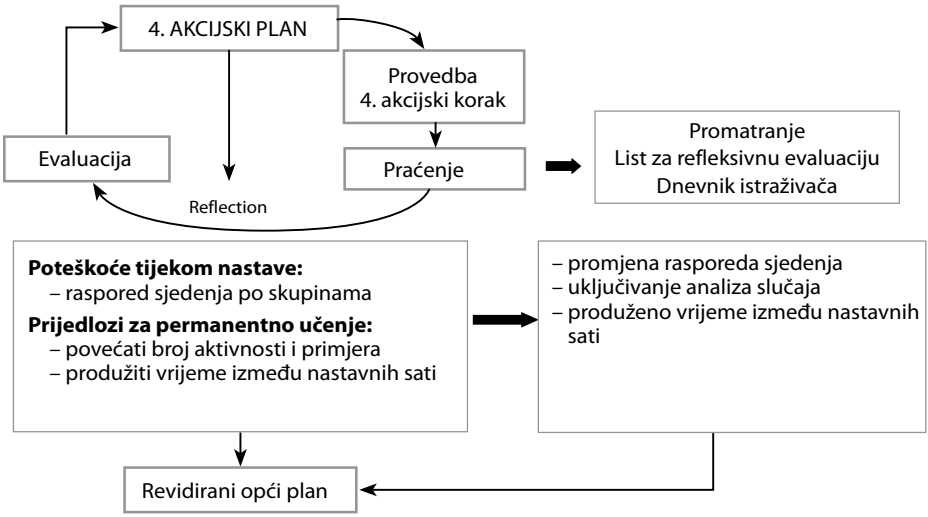
Detaljnija analiza prijedloga koje su studenti napisali na listovima za refleksivnu evaluaciju za poboljšanje permanentnog učenja pokazala je da je više studenata spomenulo prijedloge „za povećanje broja primjera (f:6)" i „povećanje sudjelovanja studenata (f:3)". U skladu s tim planirano je da se prijeđe na metode, tehnike i strategije usmjerene na studente, kako je navedeno u nacrtu smjernica. S obzirom na drugi aspekt refleksije, dana je povratna informacija o listu za ocjenjivanje koji je studentima uručen tijekom prethodnog ciklusa, a listovi su pripremljeni kako bi se podijelili studentima u sljedećem ciklusu.

Četvrti ciklus: strategije, metode i tehnike usmjerene na studente

Četvrti akcijski ciklus trajao je šest nastavnih sati kako bi se ostvarili sljedeći ishodi učenja:

- Objasniti opće karakteristike strategije učenja otkrivanjem;
- Objasniti opće karakteristike metode rasprave;
- Raspravljati o prednostima i nedostatcima strategije učenja otkrivanjem u razredu;
- Primijetiti da se ciljevi, sadržaj, razine znanja studenata i fizički raspored okruženja u kojemu se odvija nastava trebaju uzeti u obzir kada se odlučuje o primjeni određenih nastavnih strategija, metoda i tehnika;
- Uvjeriti se da je neophodno primijeniti strategije, metode i tehnike u skladu s ciljevima, sadržajem, stupnjem znanja studenata i fizičkim rasporedom u obrazovnom okruženju;
- Objasniti opće karakteristike metode učenja s pomoću analize slučaja;
- Koristiti se metodom „oluje mozgova" za rješavanje problema koji se javljaju zbog neusklađenosti s ciljevima, sadržajem, razinama znanja studenata i fizičkog rasporeda u obrazovnom okruženju;
- Donijeti odluke o tome koje bi strategije i metode bile pogodnije za rješavanje problema koji se javljaju zbog neusklađenosti s ciljevima, sadržajem, razinama znanja studenata i fizičkog rasporeda obrazovnog okruženja;
- Pripremiti aktivnost koja uključuje upotrebu metode rasprave i strategije učenja s pomoću analize slučaja.

Četiri koraka četvrtog ciklusa mogu se vidjeti na slici 4.



Slika 4 Koraci četvrtog ciklusa

Tijekom akcijskog procesa predočenog na slici 4 studenti su promijenili svoj raspored sjedenja i počeli su sjediti u skupinama određenima na početku semestra, 6. studenog 2014. godine. Strategija učenja otkrivanjem, metoda predavanja, metoda pitanja i odgovora i metoda rsprave koristile su se tijekom procesa učenja i poučavanja. U toj fazi nastavnik-istraživač započeo je nastavni sat koristeći se strategijom učenja otkrivanjem kako bi pomogao studentima da razumiju opće karakteristike tee strategije. Nakon toga su studenti ispitali i analizirali aktivnost na radnom listu u smislu faza strategije učenja otkrivanjem, a cijeli je proces popraćen aktivnostima pitanja i odgovora. Do druge polovine nastavnog sata, nastavnik-istraživač upoznao je studente s metodom rasprave, a tada je analiziran primjer aktivnosti na radnom listu u skladu s aspektima metode rasprave. Na kraju je provedena kraća grupna rasprava, a studenti su imali priliku u razredu raspravljati o prednostima i nedostatcima i ekspozitorne strategije učenja i strategije učenja otkrivanjem.

Na kraju nastavnog sata studenti su dobili list za ocjenjivanje koji su trebali vratiti sljedećeg tjedna. Na tom su listu trebali zapisati tri najvažnije i tri manje važne karakteristike strategije učenja otkrivanjem kako bi tu strategiju opisali u cijelosti, a također su trebali objasniti strategiju učenja otkrivanjem referirajući se na te karakteristike. Osim toga, promatranja unutar učionice i pitanja postavljena tijekom procesa koristila su se za ocjenjivanje rada na nastavi.

Za vrijeme uvoda u nastavu, 19. studenog 2014. godine, nastavnik-istraživač objasnio je studentima obilježja metode analize slučaja i tehnike oluje mozgova. U drugoj fazi nastavnog sata skupinama studenata je uručen radni list o analizi slučaja. Skupine su trebale prepoznati problem u toj analizi slučaja, a zatim u oluji mozgova pronaći rješenje toga problema s kojim bi se složila svaka skupina. Nakon oluje mozgova prijedlozi za moguća rješenja su sažeti i poredani po važnosti, uz pomoć nastavnika-istraživača.

Ponovno su se koristila pitanja otvorenog tipa, promatranja i listovi za refleksivnu evaluaciju kako bi se provela mjerenja i postupak evaluacije. Uz to, studenti su dobili zadatak da uz bodovnu listu za ocjenjivanje pripreme aktivnost koja zahtijeva primjenu metode analize slučaja i metodu rasprave. Krajnji rok za predaju uradaka bio je određen za kraj polugodišta, kako bi studenti imali dovoljno vremena da završe zadatak i poprave eventualne pogreške.

Sudjelovanje studenata se u tom ciklusu znatno poboljšalo jer su se više morali usredotočiti na praksu nego na teoriju. O tome svjedoči i sljedeći izvadak iz dnevnika nastavnika-istraživača, napisan 6. studenog 2014. godine:

> *Poučavanje o strategiji učenja otkrivanjem koristeći se samom tom strategijom bilo je vrlo učinkovito za privlačenje pažnje studenata. Zadatci koji od studenata traže otkrivanje karakteristika te strategije, načela s pomoću kojih se ona može učinkovito primijeniti, kao i utvrđivanje njezinih dobrih i loših strana dovelo je do stalnog sudjelovanja studenata u nastavi… Rasprave koje su se odvijale u malim skupinama studenata, a koje su uslijedile nakon procesa otkrivanja, bile su najugodniji dio nastave, u kojemu su svi studenti aktivno sudjelovali… (Dnevnik istraživanja, 6. studenog 2014.).*

Među poteškoćama na koje su studenti naišli tijekom tog nastavnog sata bio je i fizički raspored sjedenja u učionici, što je spomenulo nekoliko studenata (f:4). Analiza bilješki vođenih tijekom promatranja pokazala je da je nekim studentima bilo teško vidjeti ploču. Stoga su donesene odluke da se raspored sjedenja u učionici promijeni.

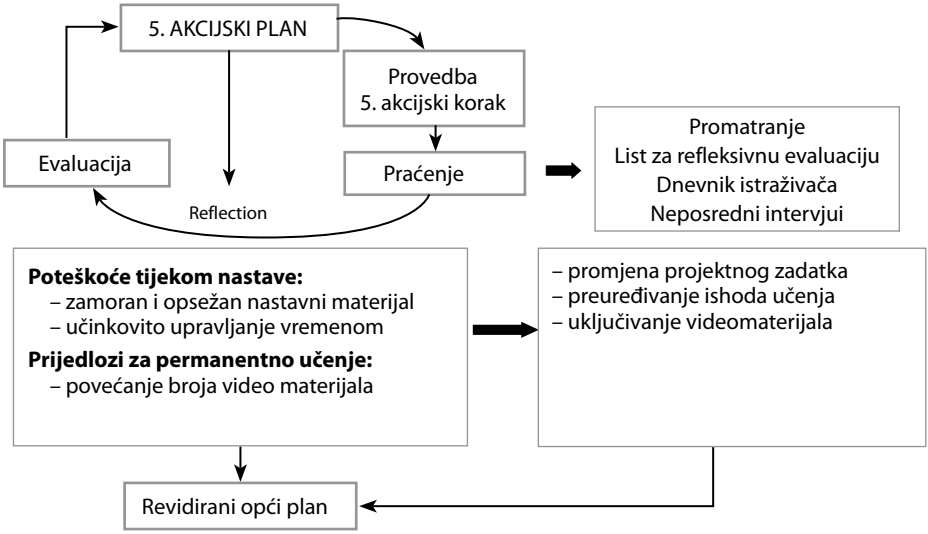
Što se tiče prijedloga navedenih u listovima za refleksivnu evaluaciju, više je sudionika spomenulo da bi bilo dobro povećati broj analiza slučaja (f:5) i produžiti razmak između nastavnih sati (f:3). Prvi prijedlog može se lako pripisati pretpostavci da su studenti bili zainteresirani za analize slučaja koje su im pokazane, pa su mislili da njihov broj nije dovoljan, jer su im bile prikazane uz pomoć audiovizualnih materijala, analizirane na nastavi pa obogaćene raznovrsnim primjerima aktivnosti tijekom četvrtog ciklusa. Jedan od studenata iz fokusne grupe rekao je sljedeće o nastavku te prakse:

> *Naučio sam kako provesti analizu slučaja i kako sudjelovati u oluji mozgova. Smatram da će mi koraci kroz koje je potrebno proći da bi se odradila učinkovita oluja mozgova biti jako korisni u budućnosti. Stvarno sam uživao u nastavi danas. Aktualni problemi bi se češće trebali obrađivati (REF, 19. studenog 2014. godine, F11).*

Što se tiče drugog prijedloga donesena je odluka ili da se napravi duža pauza između nastavnih sati ili da se poveća broj pauza. Planirano je da se zabilježe mišljenja studenata prije nego se krene na sljedeći korak. Međutim, također bi trebalo napomenuti da je broj prijedloga o permanentnom učenju drastično opao tijekom tog ciklusa, a 13 sudionika navelo je da su zadovoljni akcijskim planom i njegovom provedbom. Slično tome, broj studenata koji su naveli da nisu imali nikakvih poteškoća tijekom procesa također se povećao (f:20). Listovi za refleksivnu evaluaciju i povratne informacije sastavljene za one studente koji su završili svoje domaće zadaće priređene su kako bi se podijelile studentima u sljedećem ciklusu, pa je tako započet i peti ciklus.

Peti ciklus: strategije, metode i tehnike usmjerene na studente

Peti akcijski plan nastavio se tijekom šest nastavnih sati kako bi se ostvarili sljedeći ishodi učenja: objasniti opće karakteristike strategije učenja istraživanjem; uočiti glavne karakteristike metode suradničkog učenja; odabrati strategije, metode i tehnike koje su u skladu s ishodima učenja; objasniti opće karakteristike edukativnih igara i objasniti opće karakteristike tehnike „šest šešira za razmišljanje". Cijeli akcijski proces trajao je šest nastavnih sati. Započeo je 26. studenog 2014. godine, a završio 27. studenog 2014. Shema koraka od kojih se sastojao peti ciklus može se vidjeti na slici 5.



Slika 5 Koraci petog ciklusa

Tijekom uvodnog dijela u nastavni sat, 26. studenog 2014. godine, kao dio akcijskog procesa opisanog na slici 5, pregledane domaće zadaće vraćene su studentima te su oni predali nastavniku nove zadaće. U skladu s prijedlozima danima tijekom četvrtog ciklusa raspored sjedenja studenata u učionici promijenjen je od onoga gdje su sjedili u skupinama u oblik slova U. Pauza u nastavi produžena je, također uzevši u obzir prijedloge studenata.

U prvom dijelu nastavnog sata studentima je najprije objašnjen sadržaj, a zatim im je uručen i analiziran radni list koji je sastavljen nakon refleksije o prijedlozima iznesenima tijekom četvrtog ciklusa o pripremi za nastavni sat. Taj je radni list sadržavao aktivnost pripremljenu u obliku analize slučaja te su studenti proučili primjer te aktivnosti. U drugoj polovini nastavnog sata studentima su prezentirane karakteristike suradničkog učenja putem vježbe u učionici. Nakon toga uslijedila su pitanja i odgovori, a lista za ocjenjivanje ispunjena je u učionici tehnikom slagalice, jednom od tehnika suradničkog učenja.

U prvoj polovini nastavnog sata održanog 27. studenog 2014. godine studentima su objašnjene karakteristike tehnike „šest šešira za razmišljanje". U drugoj polovini toga

sata proučavan je video na kojem se prikazuje primjena te tehnike u jednoj privatnoj školi, a skupina je procijenila učinkovitost tehnike „šest šešira za razmišljanje" prikazane na videu.

Svi praktični koraci potkrijepljeni su aktivnostima pitanja i odgovora, a za procjenu nastave koristili su se listovi za refleksivnu evaluaciju, pitanja otvorenog tipa i promatranja za vrijeme nastave. Na kraju sata studenti su dobili zadatak da izrade projekt u kojemu su morali domaću zadaću koju su napravili kao skupina pretvoriti u pripremu za nastavni sat. Zatim su morali pripremiti dvije različite pripreme za nastavu i u skupinama podijeliti i ocijeniti te pripreme. Studenti su dobili smjernice – upute o projektnom zadatku, jedan primjerak pripreme za nastavni sat i bodovne liste za ocjenjivanje prve i druge pripreme. Tijekom procesa provedbe odvojeno je barem po dva sata za intervjue za svaku skupinu kako bi se analizirale i ocijenile pripreme za nastavni sat zajedno s nastavnikom-istraživačem, te kako bi se pružila povratna informacija o njima.

Prilikom praćenja rada studenata, na sredini procesa provedbe, koristila su se promatranja, listovi za refleksivnu evaluaciju i dnevnik istraživača, a provedeni su i intervjui sa studentima iz fokusne grupe. Analiza listova za refleksivnu evaluaciju pokazala je da je dvojici sudionika bilo teško raditi u skupini, druga dva sudionika imala su poteškoće s vremenskim ograničenjima tijekom skupnih aktivnosti, a sljedeća dva sudionika bila su u vremenskoj stisci pri dovršenju domaće zadaće koja im je bila zadana. Jedan od studenata iz fokusne grupe izjavio je da je imao probleme pri radu u skupini zbog toga što inače više voli raditi sam. Ovo je njegova izjava:

> *Rad u skupini mi je zaista jako težak jer više volim samostalno učiti i raditi (REF, 27. studenog 2014. godine, F11).*

Tijekom intervjua dvoje studenata iz fokusne grupe izjavilo je da ih je zamarao dug i intenzivan sadržaj nastavnog sata. Zapravo, neke od problema koje su studenti naveli iskusio je i sam nastavnik-istraživač, jer je dovršetak prvog akcijskog plana trajao dva tjedna duže nego je prvobitno bilo određeno, zbog nekih problema koji su se pojavili pri odabiru kolegija na početku semestra. To je rezultiralo planiranjem sati nadoknade kako bi se sve aktivnosti odradile u zadanom roku od 14 tjedana. Nastavnika-istraživača zabrinjavalo je hoće li studenti dolaziti na nadoknadu i hoće li se vrijeme učinkovito iskoristiti. Stranice dnevnika napisane na kraju tog ciklusa objašnjavaju zabrinutost nastavnika-istraživača:

> *Shvatila sam da sam studente dovela do razine razumijevanja karakteristika edukativnih igara i tehnike „šest šešira za razmišljanje"… Međutim, mogla sam im dati više vremena kada sam im zadala zadatak da se koriste tehnikom „šest šešira za razmišljanje". Ponekad mi se čini da me moja nastojanja da učinkovito iskoristim vrijeme i jednim udarcem ubijem više muha jako iscrpljuju. Zbog problema na koje smo naišli prilikom odabira kolegija i zbog kojih je došlo do odgode početka semestra, mislim da je ovo jedini način da se odrade sve aktivnosti do kraja zadanog roka od 14 tjedana (Dnevnik istraživača, 27. studenog 2014.).*

Podatci dobiveni putem intervjua pokazali su da su studenti osjetili kognitivni izazov dok su odrađivali zadatke i ispunjavali liste za ocjenjivanje još od prvoga akcijskog plana. Izazovom su smatrali i aktivnosti koje su stalno dorađivali na temelju povratne informacije koja im je davana od trećeg ciklusa, kao i projektni zadatak koji im je zadan u ovom ciklusu. Jedan od studenata iz fokusne grupe izrazio je svoje mišljenje o tome:

> *Nastava je zaista dobra, no prije nismo imali tako intenzivne i natrpane kolegije. Do grla smo u poslu. Ne mislim tako samo ja, nego i moji prijatelji… Ne možemo sve stići. Već imamo sate nadoknade, što je dodatno opterećenje programa. Volim nastavu – nastavna metoda je uistinu dobra. Kako sam upravo rekao, sve nam je prenatrpano… Usprkos nekim pogreškama koje sam napravio u svojem primjeru aktivnosti, ostvario sam 24 boda. Ispravio sam pogreške i ponovno ću vam dati svoju zadaću… (Intervju, F3, str. 2-7).*

Dakle, podatci dobiveni u istraživanju putem „školskog" pristupa izradi kurikula zahtijevali su sljedeće odluke kako bi se podigla razina aktivnosti studenata na nastavi na jednu višu, učinkovitiju razinu, jer nije bilo moguće mijenjati vremensko razdoblje planirano za nastavu.

- Jedna od priprema za nastavni sat koje su studenti izradili u sklopu projekta bit će odabrana i provedena u stvarnoj nastavi, a rezultati će se raspraviti i ocijeniti na nastavi. Druga priprema za nastavni sat koja će se izraditi bit će ocijenjena na temelju prezentacije na nastavi.
- Zadaća koja je trebala biti zadana da bi se ostvario ishod „izraditi pripremu za nastavni sat koja uključuje učenje istraživanjem, metodu suradničkog učenja i tehniku učenja po postajama" bit će izostavljena iz šestog akcijskog plana i odgođena za kraj semestra.

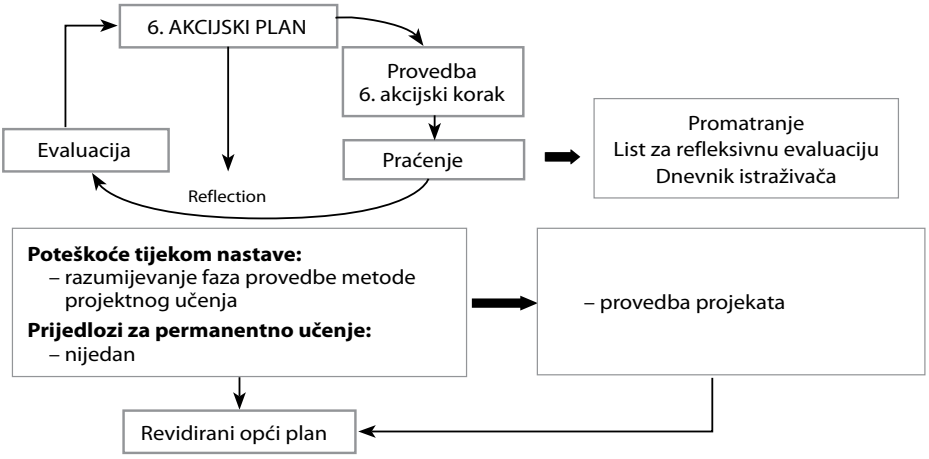
U skladu s navedenim odlukama eliminiran je i jedan ishod učenja naveden u nacrtu smjernica, jedan je reorganiziran, a postupak ocjenjivanja drugog ishoda pomaknut je na kraj semestra. Štoviše, dva sudionika predložila su upotrebu većeg broja videomaterijala. Stoga je planirano započeti šesti ciklus videomaterijalom. K tomu, pružena je povratna informacija o listovima za evaluaciju i radnim listama koje su predane nastavniku tijekom prethodnog ciklusa, a nove su pripremljene kako bi se podijelile studentima u novom ciklusu.

Šesti ciklus: strategije, metode i tehnike usmjerene na studenta

Cilj šestog ciklusa je ostvariti sljedeće ishode učenja: objasniti opće karakteristike metode projektnog učenja; objasniti opće karakteristike tehnike učenja po postajama; izraditi poster s opisom prednosti i nedostataka strategija učenja. Na slici 6 mogu se vidjeti koraci tog ciklusa, koji su se odvijali unutar bloka od tri nastavna sata.

Tijekom uvoda u ciklus opisan na slici 6 prikazan je videomaterijal o primjeni tehnike učenja po postajama u nastavi, u skladu s refleksijama prikupljenima tijekom petog ciklusa. Nakon toga je nastavnik-istraživač dao detaljnije informacije o karakteristikama

tehnike učenja po postajama te je provedena skupna aktivnost o primjeni te metode. U toj su aktivnosti studenti pripremili postere s opisom prednosti i nedostataka strategija ekspozitornog učenja, učenja otkrivanjem i učenja istraživanjem, i to u tri zasebne postaje. Nakon toga je poster prikazan voditeljima svake postaje.



Slika 6 Koraci šestog ciklusa

U drugom dijelu nastavnog sata nastavnik-istraživač prezentirao je studentima opće karakteristike metode projektne nastave. Zatim su analizirani koraci te metode na temelju dorađenih uputa o provedbi projekta. Za evaluaciju nastavnog procesa koristila su se pitanja otvorenog tipa, promatranja tijekom nastave i listovi za refleksivnu evaluaciju.

Podatci dobiveni u listovima za refleksivnu evaluaciju pokazali su da nijedan od 21 sudionika nije imao nikakvih poteškoća tijekom nastave. To se može pripisati postupnom povećanju broja aktivnosti na nastavi od početka semestra. Činjenica da su studenti spomenuli tehniku učenja po postajama i njezinu primjenu kao zabavni dio nastave također ide u prilog toj tvrdnji. Jedan od studenata dao je svoje mišljenje o tome:

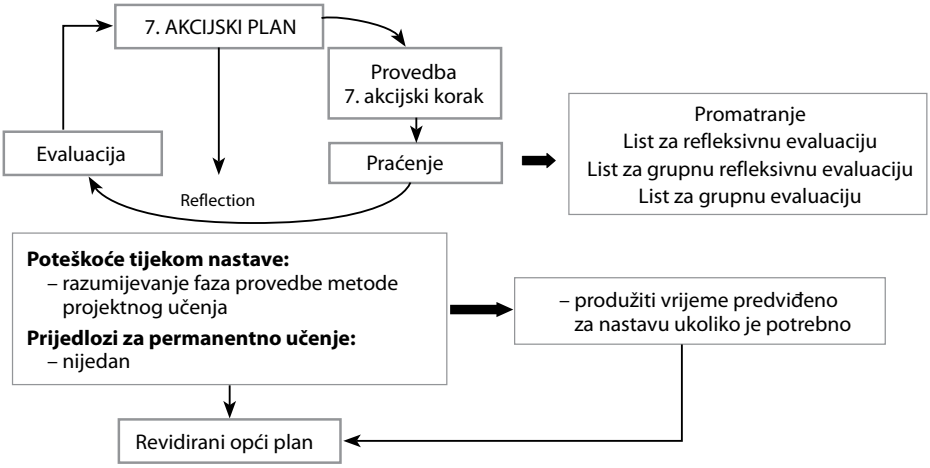
> *Nisam imao nikakvih poteškoća tijekom nastave. Gledali smo video o tehnici učenja po postajama, a tada smo to primijenili. Bilo je jako zabavno uvježbavati tu tehniku… Sve što sam naučio, ostat će mi trajno u pamćenju (REF, 3. prosinca 2014. godine, SA).*

Pet sudionika tvrdilo je da su imali poteškoća s razumijevanjem što se tiče koraka u metodi projektnog učenja. Stoga je donesena odluka da se procijeni provedba projekta, što je osnova za daljnje akcijske planove, i poveže s koracima metode projektnog učenja. Nakon toga je započeo sedmi ciklus.

Sedmi ciklus: refleksija i evaluacija provedbe

Sedmi akcijski plan trajao je devet nastavnih sati kako bi se ostvarili sljedeći ishodi učenja: izraditi pripremu za nastavni sat koja uključuje strategiju ekspozitornog učenja i

metodu pitanja i odgovora; primijeniti pripremu za nastavni sat u stvarnom nastavnom procesu; procijeniti provedbu dijeljenjem rezultata u razredu. Koraci sedmog ciklusa mogu se vidjeti na slici 7.



Slika 7 Koraci sedmog ciklusa

Tijekom akcijskog procesa opisanog na slici 7 sve skupine preferirale su primjenu pripreme za nastavni sat u kojoj su se morali koristiti strategijom ekspozitornog učenja i metodom pitanja i odgovora u stvarnom nastavnom okruženju, u skladu s uputama za projekt koje su već promijenjene u prethodnom ciklusu. Sedam skupina već je svoje pripreme provelo u praksi, a o provedbama se raspravljalo i ocjenjivalo ih na nastavi, uz korištenje bodovne liste za ocjenjivanje. Dok su na nastavi raspravljali o procesu provedbe, skupine su zajedno popunile „Skupni list za refleksivnu evaluaciju". Doprinos svake grupe zabilježen je i procijenjen na „Listu za grupnu evaluaciju". K tomu, promatranje za vrijeme nastave i pitanja postavljana za vrijeme procesa koristila su se za procjenu rada na nastavi.

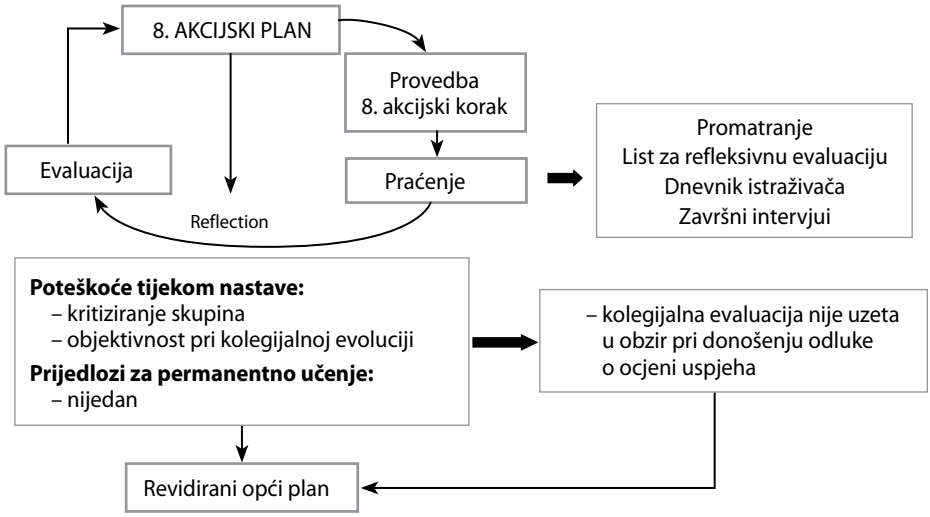
Podatci dobiveni s pomoću listova za refleksivnu evaluaciju pokazuju da većina studenata (f:19) nije imala poteškoća tijekom nastave, no za dvoje sudionika bilo je teško razumjeti videosnimke. Međutim, ni nastavniku-istraživaču nije bilo lako učinkovito upravljati vremenom, jer je bilo potrebno ocijeniti provedbu nastavnih priprema u praksu za sedam skupina. Napisan 17. prosinca 2014. godine,sljedeći izvadak iz dnevnika istraživača sažima poteškoće koje je istraživač iskusio u ovom ciklusu:

> *Pokušaji da učinkovito iskoristim vrijeme dok smo gledali videosnimke mikropoučavanja su me jako izmorili. Gledali smo i analizirali gotovo sve videosnimke, ali sam ja prije toga barem jednom pogledala svaku snimku kako bih odredila prijelazne točke i pauze da bih saznala mišljenja studenata. Međutim, još uvijek me je zabrinjavalo postoji li neki značajni dio koji mi je promaknuo. Štoviše, neke od videosnimki bile su loše kvalitete, što je dodatno otežalo cijeli proces (Dnevnik istraživača, 17. prosinca 2014.).*

Podatci dobiveni iz listova za refleksivnu evaluaciju pokazali su da su svi studenti, osim dvoje, bili zadovoljni aktivnostima. Tih dvoje sudionika dali su neke prijedloge za poboljšanje kvalitete zvuka. Kako se mikropoučavanje neće koristiti u sljedećem ciklusu, nisu poduzete nikakve mjere za poboljšanje kvalitete zvuka. Ipak, navedeno je i da tijekom nastave treba napraviti dužu pauza ako je to potrebno. Zatim je započet osmi ciklus.

Osmi ciklus: planiranje i evaluacija nastave

Koraci u osmom ciklusu osmišljeni su za postizanje sljedećih ishoda učenja: izraditi pripremu za nastavni sat u kojoj se mora koristiti nastavna metoda analize slučaja i metoda rasprave; ocijeniti nastavni plan u zajedničkom radu s ostalima na nastavi. Akcijski proces nastavio se u šest nastavnih sati održanih 24. i 25. prosinca 2014. Na slici 8 mogu se vidjeti koraci osmog ciklusa.



Slika 8 Koraci osmog ciklusa

Što se tiče provedbe osmog akcijskog plana, analizirane su i evaluirane pripreme za nastavni sat koje je pripremilo sedam skupina. Za vrijeme te aktivnosti skupine su prezentirale faze svojih priprema ostalim studentima, a ostale skupine ocjenjivale su njihove pripreme koristeći se bodovnom listom za ocjenjivanje. Osim toga, cijeli je proces popraćen aktivnostima pitanja i odgovora i raspravama u manjim skupinama. Listovi za refleksivnu evaluaciju, promatranja za vrijeme nastave te pitanja otvorenog tipa koristila su se za evaluaciju nastave. Na kraju procesa studenti su polagali završni ispit. 5. siječanj 2015. određen je kao krajnji rok do kojega su studenti morali predati svoje portfolije s radnim listovima, listovima za ocjenjivanje koje su ispunjavali tijekom cijelog procesa, domaće zadaće i pripreme za nastavni sat te kod kuće odgovoriti na dva pitanja koja su im postavljena u završnom ispitu. Osim završnog ispita, studentima su također

dane i tri bodovne liste za ocjenjivanje kako bi ocijenili svako pitanje. U prvom pitanju u završnom ispitu od njih se tražilo da prokomentiraju vezu između strategije, metode i tehnike, referirajući se na načela učinkovitog poučavanja i potkrepljujući svoj stav praktičnim primjerima. U drugom se pitanju, međutim, od studenata tražilo da pripreme aktivnost koja će sadržavati primjenu strategije učenja istraživanjem, suradničku metodu učenja i tehniku učenja po postajama te izraditi pripremu za nastavni sat u kojoj će se ta aktivnost koristiti kao dio zadatka koji je odgođen do kraja semestra, na temelju refleksije studenata na kraju petog ciklusa.

Što se tiče praćenja rada studenata, koristili su se listovi za refleksivnu evaluaciju i dnevnik istraživača, a završni intervjui provedeni su sa studentima iz fokusne grupe. Podatci prikupljeni s pomoću listova za refleksivnu evaluaciju pokazali su da su neki studenti (f:4) imali poteškoće pri kritiziranju drugih skupina, a da su neki (f:2) smatrali teškim zadržati objektivnost prilikom evaluacije svojih kolega. Jedan od studenata iz fokusne grupe spomenuo je probleme koje je imao pri evaluaciji skupina s obzirom na objektivnost:

> *Nije u redu što su neke skupine donijele svoje probleme na nastavu. Uvijek bismo trebali biti profesionalni (REF, 25. prosinca 2014., F9).*

Detaljnija analiza prijedloga koje su studenti iznijeli za bolje permanentno učenje pokazala je da je 19 sudionika bilo zadovoljno nastavom i da je svaki prijedlog iznio samo po jedan student. Sljedeći izvadak iz dnevnika istraživača, napisan 25. prosinca 2014., ukratko opisuje tu situaciju:

> *To mi je bio lagan nastavni sat… Na posljednjem sam satu uočila da su studenti razumjeli vezu između planiranja, provedbe i evaluacije te da im je potpuno jasna razlika između načela i funkcija učinkovitog poučavanja… Smatram da sam dala sve od sebe i da sam provela nastavu u skladu s ciljevima i ishodima (Dnevnik istraživača, 25. prosinca 2014.).*

Intervjui provedeni sa studentima iz fokusne grupe na kraju istraživačkog procesa također su pokazali da su ciljevi uglavnom postignuti do kraja osmog akcijskog plana i da u tom ciklusu nisu potrebne nikakve daljnje promjene:

> *Nemam prijedloga. Što se mene tiče, proveli ste najbolji mogući nastavni proces. Svi smo bili aktivni i svi smo imali priliku odraditi nastavu i pripremiti aktivnosti. Mislim da smo postigli ciljeve koje ste nam vi postavili. Pripremili smo i završni zadatak, odradili praksu, sastavili portfolio i sve pripremili (Završni intervju, 9. siječnja 2015., F2, str. 17).*

Zbog toga što su neki studenti izjavili da im je bilo teško kritizirati skupine i zadržati objektivnost prilikom procesa evaluacije kolega, odlučeno je da se ne uzmu u obzir ocjenjivačke liste koje su popunile skupine dok su procjenjivale uspjeh te da se kolegijalno ocjenjivanje ne uzme u obzir pri određivanju razine uspjeha. Završetkom osmog ciklusa, akcijski je proces završen.

Evaluacija procesa provedbe

Tijekom akcijskog procesa koji je trajao 14 tjedana izrađeno je 14 priprema za nastavni sat za ukupno 42 nastavna sata. Akcijski je proces dovršen tijekom provedbe, praćenja, evaluacije, refleksije i revizije osam akcijskih planova. Na početku tog procesa definirano je 38 ishoda učenja i njihov odgovarajući sadržaj. Međutim, jedan je ishod učenja morao biti elimininiran, a dvije praktične aktivnosti čija je provedba bila planirana za vrijeme nastave isključene su na osnovi refleksije provedene tijekom procesa provedbe. K tomu, proces implementacije i evaluacije ishoda učenja planiran za šesti ciklus odgođen je za posljednji tjedan, a proces kolegijalne evaluacije planiran za sedmi i osmi ciklus nije uzet u obzir za utvrđivanje uspjeha studenata. Što se tiče drugog aspekta procesa implementacije, napravljene su manje promjene kako bi se povećao broj audiovizualnih sadržaja, pružila detaljna objašnjenja slabijih i nejasnih tema, integrirala ta objašnjenja u strategije, metode i tehnike koje su se koristile za kontekstualizaciju informacija, kako bi se reorganizirao raspored odrađivanja zadataka te preuredio raspored sjedenja po skupinama.

Kurikul za kolegij Nastavna načela i metode uključuje aktivnosti poučavanja i evaluacije 37 ishoda učenja. Prezentacije koje je pripremio nastavnik-istraživač i aktivnosti s radnih listova koristile su se tijekom procesa učenja i poučavanja planiranog u skladu s ishodima učenja i sadržajem. Spomenute aktivnosti učenja i poučavanja uključuju strategije ekspozitornog učenja i učenja otkrivanjem, predavanja, pitanja i odgovore, raspravu, analize slučaja, suradničko učenje, projektno učenje i metode mikropoučavanja, oluju mozgova, tehniku „šest šešira za razmišljanje" i učenje po postajama. Uspjeh studenata određen je s pomoću njihovih portfolija, koji su se sastojali od radnih listova, listova za ocjenjivanje i domaćih zadaća koje su odradili tijekom procesa, „projektnog zadatka" i završnog ispita. Lista za ocjenjivanje s osam stupnjeva, jedan list za grupnu evaluaciju i jedan list za refleksivnu evaluaciju koristili su se za procjenjivanje rada studenata. Zapažanja zabilježena tijekom procesa i listovi za refleksivnu evaluaciju podijeljeni na kraju svakog ciklusa činili su ostale alate za ocjenjivanje koji su se koristili za mjerenje i evaluaciju. S obzirom na ocjenu danu za uspjeh studenata, izračunat je postotak za njihovu prosječnu ocjenu na ovaj način: 20 % finalne ocjene nosila je ocjena njihova portfolija, 20 % ocjena projekta i 60 % uspjeh na završnom ispitu. Odgovarajuća slova za ocjene dogovorena su u skladu s relativnim evaluacijskim sustavom.

Rasprava i zaključci

Tijekom procesa provedbe uočeni su problemi vezani uz vrijeme trajanja nastave, proces evaluacije kolega i raspored sjedenja. Većina tih problema je uspješno eliminirana do kraja procesa. K tomu, donesene su daljnje odluke da se poveća broj audiovizualnih elemenata, da se pruže detaljna objašnjenja o slabim točkama i da se ta objašnjenja integriraju u strategije, metode i tehnike primijenjene tijekom procesa, kako bi se informacije stavile u pravilan kontekst. Međutim, nije uočen nijedan problem koji se tiče kurikula, procesa učenja, poučavanja, mjerenja i evaluacije, a koji bi izravno utjecao na

provedbu procesa. Kao bitan aspekt pristupa izrade školskog kurikula, analiza specifičnih potreba škole koja je provedena na početku može se smatrati valjanim razlogom zašto se ti problemi nisu pojavili (Skilbeck, 1984). Glavna je razlika između tog pristupa i ostalih u tome što se sadržaj i iskustvo učenja mogu više dovesti na lokalnu razinu analizom specifičnih potreba škole (Wright i Johnson, 2000). U ovom istraživanju, prije samog procesa provedbe, potrebe bitne za ovaj kurikul utvrđene su s pomoću školskog pristupa izradi kurikula –analizom specifičnih potreba škole (Yeşilpınar-Uyar, 2016), a pojedinačne karakteristike, strukturna obilježja i potrebe studenata detaljno su utvrđene. Ti rezultati pokazuju da je pristup izrade školskog kurikula učinkovit model kada se radi o potrebama studenata i kontekstualnim obilježjima.

Ipak, od velike je važnosti raspravljati o nekima od problema koji su se pojavili tijekom procesa s obzirom na buduću provedbu kurikula. Prvi od tih problema jest taj što su neki od ishoda učenja morali biti promijenjeni zbog vremena određenog za kolegij. Prije nego je akcijsko istraživanje počelo, određeno je 38 ishoda učenja i njihov sadržaj. Međutim, jedan od ishoda je morao biti eliminiran, a jedna od dvije praktične aktivnosti koje su planirane za provedbu u učionici morala je biti eliminirana na temelju rezultata refleksije tijekom procesa. Detaljnija analiza mišljenja studenata koja je dovela do takve promjene u cijelom procesu ukazuje na to da su sudionici imali problema pri organizaciji vremena za skupne aktivnosti i zadatke zadane za domaću zadaću te da su uglavnom naglašavali da su nastavni sati bili dugi, a njihov sadržaj jako opsežan. U svojem istraživanju o kolegiju Planiranje nastave i evaluacija Çelik i Önal (2005) su zaključili da zaposlenici fakulteta i studenti smatraju da je sadržaj kolegija previše opsežan, vrijeme određeno za nastavu nije dostatno, a kolegij bi se trebao isplanirati tako da traje nekoliko semestara. Svi ti zaključci u skladu su sa zaključcima ovog istraživanja. Na temelju rezultata analize potreba koja je provedena prije istraživanja smanjen je opseg sadržaja koji će se na nastavi obraditi tako što su se iz njega isključili osnovni pojmovi o nastavi i strategijama učenja i poučavanja, modelima i pristupima, a sadržaj je i ograničen na strategije, metode i tehnike koje se uvelike koriste. K tomu, proces je proveden uz podršku aktivnosti odrađenih na nastavi i izvan nje. Iako je obrađeni sadržaj reduciran i naglašavani su praktični zadatci, činjenica da je jedan od ishoda morao biti eliminiran ukazuje na to da bi se vrijeme određeno za nastavu trebalo produžiti kako bi se učinkovitost praktičnih aktivnosti podigla na višu razinu.

Drugi problem koji se tijekom procesa pojavio povezan je s rasporedom sjedenja u učionici. U ovom istraživanju, u kojem se koristio pristup izrade školskog kurikula, najprije su prepoznati dostupni uvjeti, a radnje koje bi dovele do poboljšanja tih uvjeta provedene su tijekom procesa. Među tim radnjama bio je i novi raspored sjedenja koji bi studentima i nastavniku-istraživaču omogućio slobodno kretanje i lakšu komunikaciju u učionici. Međutim, bilo je jedino moguće postaviti stolove i stolice u oblik slova U, zbog postojećih uvjeta u ustanovi. To je bilo izravno povezano s nedovoljno dobrom infrastrukturom i fizičkim ograničenjima fakultetskog prostora. Učionica zbog svojeg rasporeda i veličine nije bila prikladna za uspješno učenje i rad sedam različitih skupina.

Nekoliko istraživanja provedenih o praksi izrade školskog kurikula (Akrom, 2015; Maphosa i Mutopa, 2012; Özyurt, 2015; Zeegers, 2012) dovelo je do zaključka da je nedostatak fizičkih mogućnosti, uz nedostatak vremena i resursa, još jedan problem koji stoji na putu školskog pristupa inovacijama, a što je također u skladu s rezultatima ovog istraživanja (uz vrijeme određeno za nastavu i raspored sjedenja). Zbog toga je važno omogućiti fizičko okruženje koje omogućava učinkovitu primjenu nastavnih metoda.

U drugim istraživanjima o „školskom" pristupu jedan od glavnih problema koji su imali negativan utjecaj na pokušaje izrade školskog kurikula bio je nedostatak znanja, vještina, iskustva i entuzijazma nastavnika koji su preuzeli odgovornost za izradu kurikula (Akrom, 2015; Li, 2006; Maphosa i Mutopa, 2012; Zeegers, 2012). Ipak, takvi problemi nisu prepoznati u ovom istraživanju – primjeni „školskog" pristupa na razini visokog obrazovanja. Mogući razlog zašto se takav problem nije pojavio u ovom istraživanju jest taj što je nastavnica-istraživačica stručnjakinja u području kurikula i nastave te što se učinkovito koristila svojim znanjem, vještinama i iskustvom dobivenim promatranjem kolegija Nastavna načela i metode i vlastitim istraživanjima o različitim aspektima obrazovanja. Drugi bi razlog mogao biti taj što je kombiniranje akcijskog istraživanja i procesa izrade kurikula omogućilo jednom istraživaču da bude nastavnik i provodi refleksiju o svojem znanju, vještinama i iskustvu koji je stekao tijekom procesa provedbe pojedinih faza evaluacije. Poznato je da provedba akcijskog istraživanja za vrijeme nastavnog procesa omogućava spajanje uloge nastavnika sa stajalištem istraživača, što olakšava pronalaženje rješenja za novonastale probleme (Yıldırım i Şimşek, 2008). Drugi problem koji se pojavio tijekom akcijskog istraživanja odnosio se na otežanu provedbu procesa kolegijalne evaluacije. Relevantne makroanalize pokazale su da su skupine studenata imale poteškoće pri kritiziranju i zadržavanju objektivnosti. U skladu s prijedlozima za rješenje na temelju analiza, donesena je odluka da se kolegijalna evaluacija provedena tijekom nastavnog procesa ne uzme u obzir zbog činjenice da studenti nisu imalo dovoljno znanja, vještina i iskustva u području kolegijalne evaluacije. Ta odluka uemeljena je na znanstvenoj podlozi, a idu joj u prilog i rezultati različitih istraživanja. U ovom istraživanju, pri provedbi postupka kolegijalne evaluacije na visokoškolskoj razini, utvrđeno je da je prosječna ocjena koju su dali kolege ili viša ili niža od one koju je dao nastavnik (Lin, Liu, i Yuan, 2001; Orsmond, Merry i Reiling, 1996; Şahin, 2008; Stefani, 1992), da su studenti nevoljko kritizirali svoje kolege (Lin, Liu i Yuan, 2001), da njihova povratna informacija često nije bila iskrena (Macleod, 1999) i da studenti nisu razumjeli da je cilj ocjenjivanja bio poboljšanje njihove kritičke prosudbe i vještina samoprocjenjivanja (Davies, 2002). Rezultati tih evaluacija, utemeljeni na nizu kriterija, upućuju na to da studenti nemaju potrebno znanje, vještine, stavove i iskustvo da bi proveli valjanu kolegijalnu evaluaciju (Cheng i Warren, 2005; Lin, Liu, i Yuan, 2001; Stefani, 1992). Prema tome, može se reći da bi stavove, znanja, vještine i iskustvo budućih nastavnika trebalo poboljšati putem različitih kolegija koje odabiru tijekom svog obrazovanja na učiteljskom studiju. Osim toga, činjenica da je nastavnik-istraživač

stručnjak u području nastave i izrade kurikula puno je pomogla da se na znanstveni način riješe problemi povezani s nastavnim procesom.

Drugi rezultat ovog istraživanja upućuje na to da je većina problema koji su se pojavili u akcijskom istraživanju riješena, pa se broj poteškoća koje su studenti imali tijekom kolegija smanjio, a broj sudionika koji su smatrali da je provedba zadovoljavajuća povećao. Taj je broj dosegao svoj maksimum na kraju procesa provedbe. Povećan broj praktičnih aktivnosti nakon četvrtog ciklusa može biti jedan od razloga za to. Razna druga istraživanja koja idu u prilog tome također su dovela do zaključka da praktični zadatci, koji zahtijevaju aktivno sudjelovanje studenata i uključuju mikropoučavanje, pozitivno utječu na znanje, vještine, stavove i kompetencije budućih nastavnika (Aremu i Salami, 2013; Caires i Almeida, 2005; Gibson i Van Strat, 2000; Minger i Simpson, 2006; Molina, Fernandez, i Nisbet, 2013; Ralph, 2014; Strawitz i Malone, 1984; Talsma, 1996). Stoga se može tvrditi da povećan broj praktičnih aktivnosti pomaže kontekstualizaciji informacija i da pozitivno utječe na proces provedbe, što u konačnici smanjuje poteškoće tijekom procesa i poboljšava kvalitetu poučavanja.

Može se zaključiti da su problemi koji su se pojavili tijekom procesa provedbe uglavnom bili povezani s činjenicom da je vrijeme određeno za kolegij bilo nedovoljno kako bi se ostvarili svi ishodi učenja navedeni u nacrtu smjernica, a koji su oblikovali akcijske planove; da proces kolegijalne evaluacije nije bio učinkovit te da je raspored sjedenja bio neadekvatan. Većina tih problema riješena je u promjenama tijekom procesa akcijskog istraživanja.

Svi navedeni rezultati pokazuju da postoji potreba za provedbom strukturnih promjena u kurikulu za izobrazbu budućih nastavnika kako bi se produžilo vrijeme određeno za nastavu kolegija Nastavna načela i metode, kao i da se poboljšaju znanja, vještine i stavovi budućih nastavnika o dijelovima kurikula i kolegijalnoj evaluaciji. Osim toga, potrebno je provesti i dodatna akcijska istraživanja u budućnosti kako bi se razvili i evaluirali kurikuli kolegija koje studenti biraju na drugim fakultetima, u skladu s analizom potreba u visokom obrazovanju.

U sklopu dodatnog istraživanja kurikul koji je izrađen tijekom procesa provedbe bit će evaluiran primjenom metode evaluacije sudionika. To dodatno istraživanje trebalo bi odrediti i dati konkretne podatke o tome u kojoj mjeri kurikul odgovara potrebama, koje prednosti donosi studentima i koliko je primjenjiv.

Zahvala

Ovo istraživanje dio je doktorske disertacije koju je napisala Melis Yeşilpınar Uyar, a koje je financirano od Zaklade za znanstvene istraživačke projekte Sveučilišta Çukurova, broj SDK-2014-2678.