# Teachers' use of Reflective Journal Writing Within a Physical Education Professional Development Program

# Beden Eğitimi Mesleki Gelişim Programı Kapsamında Öğretmenlerin Yansıtıcı Günlük Kullanımları

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#### Abstract

The aim of the present research is to explore the use of journal writing as a research tool documenting teachers' reflective attitudes within a Physical Education (PE) professional development program. Three female PE teachers participated in the research and were trained to use the constructivist oriented "Teaching Games for Understanding" (TGfU) instructional model. During a period of two months, each teacher implemented in her class 24 TGfU units and completed her own daily reflective journal. Journal entries were analyzed according to van Manen's theoretical framework, to determine the extent of reflection achieved by the three teachers. Journal entries moved from a technical to a more critical focus and this trend was accordant with each teacher's professional profile and beliefs. Since the adoption of the TGfU framework can be a demanding commitment, professional program designers should consider the inclusion of teacher reflective writing as a supportive means to this direction.

**Key Words:** Reflection, journal writing, Teaching Games for Understanding (TGfU), professional development, physical education

#### Öz

Bu araştırmanın amacı, Beden Eğitimi (BE) öğretmenleri için hazırlanmış bir mesleki gelişim programında öğretmenlerin yansıtıcı tutumlarını raporlayan bir araştırma aracı olarak günlük yazmanın kullanımını incelemektir. Araştırmaya üç kadın BE öğretmeni katılmıştır ve öğretmenlere yapılandırmacılık temelli "Anlamak için Öğretim Oyunları (AiÖO)" öğretimsel modelini nasıl kullanacakları konusunda eğitim verilmiştir. İki aylık bir süreçte, her öğretmen kendi sınıfında toplamda 24 AiÖO ünitesi uygulamıştır ve her ünitenin tamamlanmasının ardından birer yansıtıcı günlük yazmıştır. Günlük yazıları, her öğretmenin yansıtma düzeyinin sınırlarını belirlemek için van Manen'in kuramsal çerçevesi kapsamında analiz edilmiştir. Günlük yazıları teknik bir odaktan eleştirel bir odağa doğru geçiş göstermiştir. Bu eğilim her bir öğretmenin mesleki profili ve inançları ile uyum göstermiştir. AiÖO'nun yapısını benimsemev k zorlu bir bağlılık olabileceği için mesleki program geliştiren kişiler, bu geliştirme sürecine öğretmenler için yansıtıcı yazma etkinliklerini de dâhil etmeyi göz önünde bulundurmalıdır.

Anahtar Sözcükler: Yansıtma, günlük yazma, Anlamak için Öğretim Oyunları (AiÖO), mesleki gelişim, beden eğitimi

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#### Introduction

Teaching is a non-linear process of decision making and implementation - before, after and during instruction - which is carried out in a way so as to increase the probability of learning. Guided by principles of effectiveness and notions of affection, teaching demands great stamina from the part of the teacher in order to remain focused, open-minded and pedagogically thoughtful to the demanding situations of the every-day classroom reality. According to van Manen (1995), the extent to which teaching has a positive impact on every individual student's progress depends on the teacher's ability to "diagnose" what is most appropriate in each different situation. Schön (1987) suggests that such a deep understanding of the nature of every pedagogical interaction is informed by the teacher's ability to think and act reflectively.

In the last decades, reflection has been described and anticipated as the big idea of teacher education reform programs (Zeichner & Liston, 2013), and thus has been informed by diverse theoretical frameworks, incorporating a variety of meanings and understandings. According to Dewey's (1933) original definition, reflection is the "... active, persistent and careful consideration of any belief or supposed form of knowl-edge in the light of the grounds that support it and the further conclusions to which it tends..." (p. 9). Relative literature supports that reflective thinking and practice both help teachers make more informed decisions, while enhancing their ability to stay contemplative, supportive and case effective (Standal & Moe, 2013).

Being more than an on-the-spot impulsion and undertaken by teachers in order to develop knowledge and expertise, reflective thinking is undoubtedly an intelligent action (Calderhead, 1989), which requires immediacy and relation to the context. However, the contingent and ever-changing classroom life restricts thoughtfulness, understanding and feeling and postpones teachers' step-back thinking moments. In an attempt to understand the notion of teachers' reflectivity, many researchers have proposed different levels or types of reflection, introducing discrete theoretical ideas and issues about the reflective process itself (Gore & Zeichner, 1991; Schön, 1983; van Manen, 1977; Zeichner & Liston, 2013).

Among them, van Manen's (1977) hierarchical theoretical model proposes a taxonomy of three levels of reflection that can be demonstrated by teachers during the process of reflective thinking and practice. The first level, *technical reflection*, focuses on thinking about the means and not on the ends, with the teacher being considerable about the effectiveness of teaching, as well its efficiency to achieve predetermined goals. Competences are subjected to reflective thought, while the teacher's predetermined goals are not being criticized. At a second level, teacher's *practical reflection* subjects to analysis and experimentation the underlying rationale of processes, goals and outcomes, while trying to clarify their underpinning norms and values. The third level, *critical reflection*, is concerned with the ends of teaching in light of wider social, political, moral and ethical considerations. The purpose of this high level of reflectivity is to support student equity and care without bias or norms of authority (Van Manen, 1977, pp. 226-227).

One of the methods suggested to promote teacher reflective practice is journal writing. According to Walker (2006), journal writing refers to any writing that can challenge one to reflect on past situations and consider how they might have performed differently. As a means to verbalize feelings and make connections with other areas of the teacher's life, journal writing has gained attention as a method for reflection. Evidence provided (Walker, 2006; Williams & Wessel, 2004), indicates that journals facilitate critical thought, while helping individuals relate to past experiences and turn them into new learning opportunities.

Reflective practice has gained attention as an irreplaceable form of teacher experiential learning also in the field of Physical education (PE). Embedded within programs of PE teacher professional development, reflection has been utilized as a means of critical thinking on experience (Deglau et al, 2006), as a strategy to go against the routines of everyday habit (Attard, 2007), and as an ally in PE teachers' meaningful professional learning (Keay, 2006; Tsangaridou & O' Sullivan, 1997).

According to Standal and Moe (2013), most of the studies investigating reflective practice in PE deal with the influence of different teaching methods on PE teachers' reflective capabilities and almost all use journal-writing as a strategy for documenting reflection. However, up to date research findings continue to support both pre-service PE teachers' unreflective patterns of education and in-service PE teachers' need for more opportunities to participate in reflective communities (Standal & Moe, 2013). PE researchers agree that longitudinal and practically relevant interventions are needed; ones that help PE teachers widen their knowledge and skill base while critically reviewing their praxis (Kirk & Tinning, 1992).

Based on the above, the aim of the present research project was to explore the use of journal writing both as a vehicle for teacher reflection and as a research tool documenting teachers' progress within a PE professional development program.

Three female in-service PE teachers participated in the program and were trained to use the "Teaching Games for Understanding" (TGfU) instructional model. TGfU is a game-centered instructional model which employs developmentally appropriate, modified games to promote students' tactical awareness and intelligent game performance. Based on the premises of constructivism, TGfU encourages teachers to think more "on their feet" while teaching, and adapt their lesson accordingly to their students' developmental needs (O' Leary, 2012).

In the present project, all PE teachers were responsible for designing and implementing 24 TGfU units, during a period of two months. Following every unit's implementation, each had to complete her own reflective journal according to previously given guidelines. Journal entries were analyzed according to van Manen's three levels of reflection (1977) (technical, practical, critical), to determine the extent of reflection achieved by the three PE teachers.

Recognizing the variation in PE teachers' reflectivity as a positive sign of professional change and empowerment, the ultimate purpose of this project was to provide a greater understanding of the relationship between purposeful and deliberate PE teaching practice and teachers' content of reflection. In order to achieve this, we sought to answer two key questions: a) what factors influence PE teachers' reflective attitudes during the implementation of new practices? and b) how are PE teachers' reflective skills changed during their participation in professional development programs?

#### Reflective writing within physical education

The use of writing as a means to encourage reflection has a long tradition in the fields of teacher professional education. Either as journal or portfolio or assessment writing, this externalization of ideas, thoughts and experiences on paper, enables the writer to re-engage upon their missing or neglected parts, facilitating thus transformative learning (Mezirow, 1990).

Within the field of Physical Education (PE), several researchers have depended on the use of journals to document or analyze teachers' reflection patterns (Ballard & McBride, 2010; Blair & Capel, 2011; O'Connel & Dyment, 2011; Tsangaridou, 2008; Tsangaridou & O' Sullivan, 1997). The main finding of these studies was that reflection is always situation specific and thus it is bound by contextual constraints. Specifically, in-service PE teachers' reflective practice was documented to develop either in relation to years of experience (Tsangaridou & O'Sullivan, 1997), or within professional development programs that foster teacher' participation and decision making (Blair & Capel, 2011). Regarding pre-service PE teachers' reflectivity, research has shown that even though prospective PE teachers are critical of the way PE is delivered (Tsangaridou, 2008), they fail to move beyond the technical aspects of their teaching. The analysis of their reflective written material proved that this was due either to the negative influence of their unreflective colleagues or to their lack of appropriate writing skills (McCormack, 2001).

Trying to justify such findings, researchers argue that the technical focus of their training prevents preservice PE teachers from starting to reflect critically. The onedimensional emphasis of PE teacher preparation programs on reflection about teaching content and methods, orientates their thinking to the means and not the ends of teaching, without any further inspection of what good PE means (Standal & Moe, 2013). This focus on technicality is similarly communicated to students as teachers enter the profession. Most in-service PE teachers seem to adopt direct instructional models and strategies which create highly organized learning environments, focusing on the outcomes of students' technical performance (Kirk, 2009). This one-dimensional emphasis creates no space for the social and cognitive dimensions of learning to be awakened, and thus is detrimental to students' meaningful learning and teachers' tactful pedagogical practice.

According to van Manen (1995), the term "pedagogical tact" refers to teachers' situated practical knowledge and shares social and moral features and concerns as "...a kind of practical normative intelligence that is governed by insight while relying on feeling..." (van Manen, 1995, p. 10). As a spontaneous link between theory and practice, tactful pedagogical practice involves interpretations of students' developmental needs and feelings, understanding of classroom interactions and a moral intuitiveness to sense what is significant. The oversimplified nature of traditional technique-oriented PE lesson environments cannot promote knowledge forms and reflective practices needed to address such tact of teaching.

In order to provide valuable learning experiences, teachers need to make pedagogical adjustments to their practice, ones that will help them move beyond explanation to a more conscious thought of their internalized behaviors (van Manen, 1995). However, this cannot be accomplished easily, since, for many teachers, practice and experience have become powerful traditions (Cushion, 2009). Ha, Wong, Sum and Chan (2008) state that PE practitioners will not be persuaded to change until they experience their own change and growth within professional development programs that introduce them to practically relevant and pedagogically tactful instructional models.

## Teaching games for understanding: tactful pedagogical practice

Speaking about pedagogically tactful instructional models, we think that Teaching Games for Understanding (TGfU) (Bunker & Thorpe, 1982) is a model of this kind. In comparison with skills-first methodologies, the TGfU model offers a shift in pedagogy by introducing specially modified games as a means of promoting tactical knowledge and enhancing participant motivation and game performance (Rovegno et al, 2001).

The learning opportunities afforded by the TGfU model assume a constructivist oriented environment, one where the teacher acts off-stage as a facilitator, placing the student at the center of the learning experience. The structure of a TGfU unit assumes that the teacher introduces students to a game, which is built on a fundamental tactical problem. During the game and with the use of teacher questioning, players are encouraged to analyze their individual or team actions in order to appreciate the form of the game (i.e. importance of main game rules). Within modified game structures (i.e. reduced areas of play, fewer players, adapted rules, use of lighter and smaller equipment), students are involved in problem solving scenarios and decision making instances that encourage them to experientially conceptualize 'when' to apply 'which' techniques. The ultimate purpose of the model is to prepare wise game players, who respond to the physical-perceptual and social-interactive dimensions of the learning environment with an equal effectiveness (MacPhail, Kirk & Griffin, 2008).

Butler (2005) states that this different way of thinking about pedagogy requires pedagogical expertise and content knowledge from the part of the teacher and a shift

of focus from "what is wrong with my students' performance" to "how can I solve problems that interfere with my students' performance". Furthermore, it places a demand on the teacher to be able to "read the play", so well so that he/she can structure developmentally appropriate games shaped by certain pedagogical principles.

According to Light (2008), there is definitely an evident 'epistemological gap' between the underpinnings of the constructivist framework of TGfU and PE teaching practice. This gap represents the distance between teachers' declarative and procedural knowledge. Light suggests that the adoption of pedagogically tactful approaches to PE teaching and learning cannot rely on processes of content explanation and method justification. It requires getting teachers to re-structure their lived experience and think more consciously about the content and consequences of their actions. Such a process will allow them to generate their own questions about lesson design and effectiveness, explore personal hunches and hypotheses and begin to perceive the multiplicity of views inherent in their day-to-day interaction with students. In this process of professional change, journal writing can be used both as a means and as an end.

## Methodology

In order to capture the complex and abstract processes of reflection used by the PE teachers in our study, a qualitative case study design was adopted (Yin, 2003). This allowed the authors to collect descriptions of the phenomenon under study and discover new meanings during data collection and analysis.

## **Participants**

Three female PE primary school teachers participated in the research (pseudonyms assigned as Maria, Joan, Kristin) and were trained to use the "Teaching Games for Understanding" (TGfU) model. At the time of the research, the three PE teachers were the only PE teachers working at an experimental pedagogy school in Pireaus, Greece, that showed an eagerness to participate in a research project sponsored by the Sport Pedagogy Laboratory of the University of Athens, in Greece. All teachers gave oral consent for their participation in the research, which was also approved by the university ethics board. Maria, Joan and Kristin were experienced PE teachers with athletic training backgrounds and years of experience ranging from eight to twenty. At the beginning of the research, they all admitted that they usually applied direct teaching methods in their practice and none of them had previous experience with the TGfU framework.

## The TGfU professional development program

The TGfU professional development program was carried out during three consecutive stages. At first stage, theoretical workshops and practice meetings were designed to introduce the participating teachers to the philosophy of the model and familiarize them with its pedagogical principles.

At the second stage and during a period of two months, each teacher was responsible for designing and implementing in one of her classes 24 PE units, according to the three discrete TGfU categories: Target, Net/Wall and Invasion Games (eight units per category) (Griffin & Butler, 2005). Maria and Kristin were responsible for grade D students (N=25 for each class), while Joan for grade B students (N=25).

The lessons were designed to meet the learning outcomes proposed by the Greek PE curriculum for primary schools and the developmental needs of each teacher's primary class. Before the implementation of every unit, electronic copies of lesson plans were daily forwarded to the first author, who acted as the research facilitator. The facilitator's guidance and feedback concerned the relevance and suitability of the units to the model's principles, the form and structure of games, the presentation of the selected activities, the type and phrasing of questions, the selection of equipment and play areas, all these before lessons were applied in practice. Selected lesson observations, video-recordings and group discussions were carried out within the school PE timetable, with the purpose of promoting PE teachers' knowledge and competence regarding the use of the model.

Following the implementation of every unit, each teacher had to complete within 24 hours her own structured reflective journal, which, at the end of the program, was going to be thematically analyzed according to van Manen's three levels of reflectivity. All journals were based on Pultorak's (1993) reflective questions, and were designed so as to aid teachers' critical self-analysis. Particularly, the following reflective questions were used:

- 1. What were your goals for the lesson?
- 2. What did you teach (content)?
- 3. How did you teach your lesson (methods, model)?
- 4. What influenced what and how you taught?
- 5. What if anything was satisfactory or not about the lesson?
- 6. How successful were the pupils in playing the game?
- 7. If you could re-teach the lesson which aspects would you change?

8. Describe anything that happened during the lesson, which you found significant.

9. Add any additional comments that you deem important.

The third stage of the program included final semi-structured interviews with each teacher separately, with the purpose of illustrating multiple opinions and impressions regarding the use of the model. The analysis of these interviews was planned to be a part of future larger scale research project.

# Data analysis

From the total of 24 PE lesson reflective journals, only sixteen were subjected to

thematic analysis, per teacher (Net/Wall and Invasion units). The first eight Target-unit journals were used for the training of the two judges that would be involved in the process of journal coding. According to Mandigo (2003), the target TGFU category is simple enough so as to help improve a) students' game performance and b) PE teachers' TGFU understanding. On this premise, these eight journals were used to introduce the two judges to the aim of the research and the functional value of the coding process and train them on several issues regarding the ways of observation and recording (Reid, 1982).

Prior to data analysis, the first author met with one specifically trained judge (not involved in the study) to establish the journal coding criteria. The two of them read all PE teachers' written statements to the Target journal reflective questions and assigned each statement to one of van Manen's (1977) three levels of reflectivity. By the end of the training period a consensus of 85% agreement was reached between the two judges.

From the remaining sixteen journals, each question-statement was subjected to its own thematic analysis according to van Manen's levels of reflection, in order to understand the underlying structure of PE teachers' experiences that were evident in the raw data (Thomas, 2006). During the process of journal coding, each reflective statement was read and reread by each judge separately, and its content was related to one of the three reflective categories. Afterwards, each judge assigned a summary score to each question per TGfU category.

For example, for the sum of the eight consecutive Net/Wall units, each judge assigned to each journal question separately an overall van Manen score (technical, practical or critical reflection), which was based on the most repeated type of reflection in the teacher's statement. The same was done for the eight Invasion units. In certain cases, that a sentence within a teacher's response revealed a different level of reflection than the overall value, it was noted so as to be separately discussed and analyzed. The judges' summary scores were then combined to estimate reliability of coding by the following formula (van der Mars, 1989):

Reliability = number of agreements/ (total number of agreements + disagreements)

In total, an agreement of 80% was reached between the two judges, but after discussion of the data analysis it was deemed possible that almost full agreement could also be achieved.

## Results

In the following section, the results of the reflective journal analyses are presented per journal question, across each category of the TGfU model. Results are presented for each PE teacher separately.

# Maria – Net/Wall category reflective journal analysis

At the beginning of the Net/Wall category, Maria's responses to *the first three* journal questions focused mainly on the technical aspects of the model's implementation and particularly on lesson management issues. This was somewhat expected since the content of these questions prompted responses of this kind. For *question four*, Maria seemed to be mainly concerned with the processes that she used to address the lesson objectives. Within her journals, she often referred to the practical actions undertaken to meet the lesson outcomes (i.e. changes in game equipment, ways of handling student absenteeism, etc.). Her willingness to address each lesson's outcomes was evident in her reported desire to maintain discipline within her class. There were few incidences in question four of her analyzing the underlying assumptions of her designed content activities "...I did not teach exactly as I had planned since there were instances when some students wanted more instructions and guidance...I had to give them more time..."

For questions *five, six and seven,* Maria provided mainly technical responses. In question five, she noted students' response to her question as a satisfactory lesson component, their ability to play the game effectively as a rewarding element, while in question six she referred to time and space factors as elements that often constrained the lesson's effectiveness. In *question seven*, she noted that changes in game rules and equipment would have facilitated her lessons' future implementation.

Questions eight and nine provided more evidence regarding Maria's practical reflectivity on lesson issues. The open-ended format of these questions facilitated instances of her writing about students' chances to have fun during game play or about the importance of giving PE teachers opportunities to assess lesson content, outcomes and means. The summary findings of Maria's reflective journal analysis are presented in Table 1.

PE Teacher: Maria			
Question	NET/WALL CATEGORY	INVASION CATEGORY	
1	Т	Т	
2	Т	Т	
3	Т	Т	
4	Р	Т	
5	Т	Т	
6	Т	Т	
7	Т	Т	
8	Р	Т	
9	Р	Т	

 Table 1. Maria's results of reflective journal analysis

Note: T= Technical Reflection, P= Practical Reflection, C= Critical Reflection

#### Maria – Invasion category reflective journal analysis

As with the previous category, Maria gave technical reflection responses to the *first three questions* of the Invasion games category (Table 1). Her descriptions concerned how the lesson started and ended, what were the expected outcomes and what was the content of the activities that she used.

Her recordings for *question four* were similar, where she seemed to worry mainly with time constraints as factors affecting lesson and student effectiveness.

For questions five to nine, Maria seemed to note mostly factors associated with the effectiveness of lesson content and students' responses to her guidelines. In these questions, her brief descriptions of what happened and her personal positive estimation of students' effectiveness were often noticed. A commonly used statement was "...I believe that students were in their majority effective...". By focusing on meeting lesson goals, few were the instances when Maria gave level two or three statements (practical and critical reflection).

She demonstrated practical reflection when she realized that all students could give answers to her questions, although at a technical level not all of them could achieve the lesson's goals (a statement revealing the model's capacity to engage all students' cognitive effort). In one of her journals, she further clarified that this model could foster each student's metacognitive abilities.

At the end of the program Maria managed to show instances of critical level responses when she noted that '...today I felt very proud of my children..." or "...I give each of them personally what they need to progress within the lessons...". These statements were tightly related with her idea of disciplined class management, which according to her beliefs is the big idea of efficient PE practice.

## Joan – Net/Wall category reflective journal analysis

For the *first three questions* of the Net/Wall category reflective journals, Joan gave technical responses, which focused mainly on the description of lesson objectives, content and media. Among her commonly referred lesson outcomes were cooperation and creative thinking, which were presented as ingredients of effective game performance. From journal six to journal nine, she used plural tense to describe the lessons' outcomes i.e. "...together with my students *we reviewed* on what we had learned so far and (rules, offense, defense)..." or "...*we added* the beginning of offense from the team that scored a point...", something which revealed her being with her mind and body at the heart of practice.

In *question four*; Joan provided mainly level two responses (practical reflection) when she wrote that "...students' enthusiasm and their need for movement urged me to give the best I could in feedback..." or "...I employed all my powers to meet my lesson goals...". She stressed that this was needed to overcome time or context specific constraints (e.g. noise in the school court, students' frustration, etc.).

In *question five*, Joan remained focused on the underlying assumptions that underpinned her practical actions. She noted that factors like "...students were willing to participate..." or "...they are starting to cooperate efficiently..." determine lesson success and effectiveness. In cases when "...I wish all had answered my feedback questions..." or "...some students are very immature...I have to stand beside them all the time..." she noted that maybe she had overestimated her students' abilities or had pressed them to perform, something which was not accordant to her beliefs.

For *question six,* Joan gave mainly technical reflection responses when she described percentages of students' on-task or cooperative behaviors. In some instances, however, she gave reasons why some students were more anxious than the others "... student A and student B, who handled the ball more easily, did not make good choices and made the game difficult for the others..." or "...by focusing on tactics they learned to make good decisions and play with better techniques...".

For *question seven*, Joan pointed out factors that in the future could make her lesson more effective, mainly stressing that too much content is not suitable for grade B students, since at this age children need fewer and less complicated games.

In *questions eight and nine*, Joan gave mainly critical level responses, often stating that "...my students and I have come very close....the game makes strong connections between them as a team...it is very important for all of them to move in their lives and have fun with it...one of my most sensitive students did not have a good time and I had to put him in another team...they are all more motivated than before...". Joan admitted that she had learned a lot from her students' responses to the new lesson model "...we all learn from all ... simply we need time".

The summary findings of Joan's reflective journal analysis are presented in Table

2.

	PE Teacher: Maria			
Question	NET/WALL CATEGORY	INVASION CATEGORY		
1	Т	Т		
2	Т	Т		
3	Т	Т		
4	Р	Т		
5	Т	Т		
6	Т	Т		
7	Т	Т		
8	Р	Т		
9	Р	Т		

Table 2. Joan's results of reflective journal analysis

Note: T= Technical Reflection, P= Practical Reflection, C= Critical Reflection

#### Joan – Invasion category reflective journal analysis

Within the invasion game category, Joan started her journal writing mainly with technical reflection responses (Table 2). For the *first three questions*, she gave descriptive answers which focused on the application of knowledge and goals. For *question four*, Joan focused mainly on her immediate responses to her students' need for play and movement, since she expressed a fear that unless she was ready to act, her students would lose their interest. Such a feeling revealed a level two response, since Joan seemed to scrutinize teacher readiness as an underlying rationale for lesson effective-ness and outcome achievement. "I have to be absolutely ready...otherwise students will lose their interest..." she writes.

For *question five* (lesson satisfactory or not), Joan noted factors like "...students' willingness to participate...students' motivation...students' creativity..." as important mediating factors for lesson effectiveness. By assessing the impact of the new model on her students' progress, she stated that the more immature students were consciously altered in terms of behavior and tactical understanding. However, she did not fail to notice that sometimes the lesson content, although modified to students' grade level, seemed to complicate them. "...The lesson's outcomes were met but I struggled to succeed it..." The most often reported educational consequence was her pressure on students, which she thought was not ethically right.

For questions six to nine, Joan often reported ethical and moral issues as factors

determining the educational worth of the new model. "...I am moved by student's C efforts...my students are fighting about who will be the one to help me with lesson organization...I give an hour of pleasure to them...I trusted student D and she trusted me...what a bond between a teacher and her student...". Furthermore, there were many cases when Joan tried to justify her students' mistakes or her disability to perform equally well in all lessons. *Questions six to nine* were filled with instances of practical and critical reflection which were mentioned interchangeably. "...Children need to be trusted and supported. In this way, they operate, they gain confidence in themselves and become mature. We shall not overdo it, of course. We must observe them carefully and give them so much as their shoulders can bear...".

## Kristin – Net/Wall category reflective journal analysis

Starting from the *first three journal questions* of the net/wall category, Kristin also displayed technical reflection responses, and described lesson content, activities and methods. For *question four*, she often used statements as "...I thought...I believed...I wondered...the rationale that..." which indicated her way of thought in the design of lesson activities and declared her willingness to better understand the values put on her practical actions.

Practical reflection responses were also noted for *question five*, where Kristin continued to subject lesson outcomes to analysis, focusing mainly on students' responses to her guidelines and feedback. "...Many students with concentration problems seemed to participate more actively...I intuitively changed some game rules and I was justified since it suited more to their needs...some students' answers to my feedback questions are more convergent as if they cannot enact a more abstract way of thinking...". The latter was judged by her as a vital component for the new model's application and she often noticed that her students were not ready to think and act in this way.

In *questions six to eight* Kristin provided evidence of practical reflection thought, when she described the way(s) that she handled (or would handle) ineffective instances or difficult moments within her lessons. In these questions, Kristin clearly illustrated her ways of handling lesson goals according to students' needs, and demonstrated a better understanding about the new model's principles.

In question nine, there were few instances of recording her inability to implement her lessons as they were planned, and she attributed these unlucky moments either to students' cognitive and motor immaturity or on time and space constraints. However, trying to be fair with all her students, she also recognized moments of progress within these lessons, taking in mind how difficult it was for her students to escape from the traditional PE lesson stereotypes.

Her closing remarks revealed level three of reflective thinking (critical reflection), especially when she wrote that "...I got a testament of how students' answers can be determinant when one listens to them carefully and tries to apply them in practice...for

all children there is a special way to approach them and help them improve (unfortunately, due to various circumstances, this is not always possible)..."

The summary findings of Kristin's reflective journal analysis are presented in Table 3.

PE TEACHER: KRISTIN			
Question	NET/WALL CATEGORY	INVASION CATEGORY	
1	Т	Т	
2	Т	Т	
3	Т	Т	
4	Р	Р	
5	Р	Р	
6	Р	Р	
7	Р	Р	
8	Р	Р	
9	С	С	

Table 3. Kristin's results of reflective journal analysis

Note: T= Technical Reflection, P= Practical Reflection, C= Critical Reflection

## Kristin – Invasion category reflective journal analysis

Like her colleagues, Kristin also replied to the *first three journal questions* of the invasion category with an emphasis on the lessons' technical elements. For *questions four and five*, she gave level two answers, explaining the ways she handled lesson goals and analyzing the reasons why certain educational goals were not met. The number of students within games, time constraints, problems with students' understanding of her questions, absences and the need for her immediate response to these factors, seemed to frustrate her occasionally. For all these issues, Kristin clarified the norms and values of the means and processes that she used "...I had to put student E in a different team because he kept complaining about his teammates (he is the one that always complains and distracts other students' attention)...due to him the game could not start on time and the other students complained...".

For *questions six to eight*, Kristin often expressed her concerns about how the presence of highly skilled students positively affected the development of less skilled

ones, who within the mew model showed an "...unexpected progress...". Furthermore, she described the ways she experimented with changes in her lessons' rules and equipment and assessed how these changes affected the flow and impact of her lessons. Evident was also her respect to the opinion of more mature students, whom she usually observed or "consulted" before deciding what was suitable and appropriate.

Finally, Kristin's *question nine* responses had elements of critical reflection. She felt that it was her obligation to deal immediately with factors that hindered the model's effectiveness, something that she did as she planned. "...today I met with the student, who continually created frustration within the lesson, and we talked about it...I will meet with his classroom teacher to see how we can handle him better...". This high sense of duty that she had throughout the program made her feel tired during the final lessons. The end of the program left her with mixed feelings "...relief for the end of the program ... joy because I saw my students progressing and enjoying their game play ...and worry for the *vacuum* that will come in my everyday classroom reality...". Kristin related all these issues with every PE teacher's professional practice.

#### Discussion

The aim of this study was to explore journal writing as a means of promoting teacher reflection within the context of a professional development program. The program was designed so as to train three primary PE teachers in the philosophy and use of the TGfU curriculum model. Teachers' changes in modes of reflective practice were assessed according to van Manen's (1977) taxonomical model of three levels of reflective practice: technical, practical and critical reflection.

During the two-month period of the model's implementation, there were instances of all three levels of reflection in the three teachers' writings, all being in a positive direction. PE teachers' answers to the journal questions moved from a "fix it" mentality to a more student centered focus, being a dialogue of thinking and doing (Schön, 1987).

Williams, Wessel, Gemus and Foster-Sargeant (2002) have agreed on the above, while studying physical therapy pre-service teachers' reflective thinking. Pultorak's studies (1993, 1996) on novice teachers' developmental processes of reflection, found that reflectivity can progress from level one to level three of van Manen's (1977) model, while teachers gain experience as educators in the field. A similar finding was also noted in the present study. Despite having different foci, Maria, Joan and Kristin started reflecting on technical aspects of the program and sometime during the course they managed to reach patterns of critical reflection.

In their attempt to incorporate the TGfU model in their practice, all had to adopt a novice-teacher profile since they had to employ a tactics-to-skill approach to teaching games, while appreciating their students' needs and interest. This "student-eye" lens of lesson design and implementation together with the questioning protocol of the TGfU model, required from teachers to think more in-experience and sense what is appro-

priate. Within their writings, certain aspects of situations they encountered appear to have undergone periods of doubt, as each teacher was working on her perceived best problem solutions. Contextual constraints together with their former inexperience with the use of the model were often reported as inhibitory factors in their attempt to apply the new model in practice.

However, as they gained experience and confidence with the use of the model, they started making new connections between their teaching and their students' learning, and saw the benefits on all students' performance. While these instances were increasing in frequency and complexity, so were teachers' responses changing in content and level of reflection. Tsangaridou and O'Sullivan's (1997) reported similar findings when studying the role of reflection in PE teachers' professional development. Through the process of problematizing on their work, teachers became aware of their habitual practices and managed to consider alternatives to their educational aims and methods. In the present case, this was necessary since the TGfU model required from them not only a pedagogical adjustment to games teaching but rather a paradigmatic change to their underlying philosophy (Sweeney, Everitt & Carifio, 2003). Despite the difficulties they encountered during its implementation, all teacher participants admitted that TGfU was a highly effective pedagogy. However, each one welcomed the content and philosophy of the new practice at her own different pace according to her personal attributes.

Even though all teachers showed instances of reflective thought at some time during the research, only Joan and Kristin displayed critical reflection at the end of the program. Pinkstaff (1985) states that reflective journals should foremost be safe places that encourage free expression. This was absolutely the case with the present journals, since their content was highly confidential to encourage thoughtfulness and the questions were written in an open-ended format so as to allow the emergence of expressive writing. However, as McCormack (2001) noted in a similar dance research project, journal writing is not so appropriate for those who lack writing skills. That was the case with Maria who admitted that she would rather prefer talking that writing her thoughts on paper. Apart from Maria, it seemed that for all participants more time was needed to build trust in this new way of thinking about practice. Deglau, Ward, O'Sullivan and Bush, (2006) and Crawford, O' Reilly and Luttrell (2012) confirm this statement adding that longitudinal interventions are needed to sensitize PE teachers to processes of critical reflection.

Ballard's (2006) research on the development of pre-service PE teachers' reflective abilities confirms the above statements. Ballard (2006) also adds time constraints as factors negatively influencing the emergence of critical reflection. The activityrich school timetable, together with the time-consuming processes of learning to use the constructivist protocol of the TGfU, created a heavy-duty practice for the three teachers. In the relevant literature, teacher struggles with time management issues are reported as factors negatively influencing reflection (Gore & Zeichner, 1991; Kise, 2006). In the present case, this time-burden was evident in all teachers' writings. With the adoption of the TGfU model, the three teachers had to organize constructivist class-rooms that encouraged and accepted student autonomy and allowed student responses to shift game strategies and alter activity content.

According to Brooks and Brooks (1999), this shift in teaching is not an easy undertaking. Howarth (2005) further states that the requirement to ask purposeful questions relates to practitioners' experience with the use of the TGfU model and their ability to read the game accurately from the students' perspective. Such a re-positioning of the teacher's authority can be problematic for some teachers, who are accustomed only to the use of direct teaching styles. Pedagogical content knowledge and an increased perceptiveness of students' attitudes are traits of teacher's professional profile that can support such a change. TGfU relative literature supports this statement (Roberts, 2011), noting the need for more strategies and resources to support PE teachers in their process of constructivist empowerment.

Finally, commenting on the relationship between critical reflection and tactful pedagogical practice, we believe that the two are interviewed with the phenomenology of each teacher's world. In our case, each PE teacher interpreted from a different perspective their students' responses, feelings and desires, shading a different light on their gestures and expressions. Each adopted a different frame of "how much to expect from students" which was tied to her personal interpretations of what was appropriate for each circumstance. For Maria, it was discipline that guided her frame of mind, while Kristin employed intelligence and rationale to link experience with practice. Joan adopted a more affective attitude to approach students' frustration, shyness and interest, so as to determine her actions and options. Coming to know all of them, it becomes clear that every one's stance was tied to the qualities of her character, which are more than respected.

As van Manen (1995) states, due to their social complexity, classroom incidents cannot be approached with a predetermined set of principles or theories. For this reason, the use of an absolute hierarchy in categorizing teachers' aspects of reflection is not the ultimate idea. The different levels of reflection reached by PE teachers in the present study do not denote a qualitative categorization of their thinking and acting. The categorization presented above provides a picture of their different aspects of thinking, which was foremost used to know each teacher personally. With teachers' reflective patterns in mind, the research facilitator understood better the influence of certain ideological constraints on their taken for granted practices and personalized her guidance and feedback accordingly. Ultimately, this was absolutely needed since the facilitator's role was to help PE teacher maintain continued engagement with the program and develop an objective understanding of the model.

Nisbett (2005) states that objectivity is first understood through the individual's

subjective experiences. Therefore, teachers should be given continuous opportunities to explore and envisage their origins before they are persuaded to change and develop professionally. We believe that our teachers took this opportunity and processed it differently with their own philosophy and pace.

## Conclusions

This study illustrated that the use of daily journal writing within PE teaching practice can encourage teachers' reflective thinking and pedagogical content knowledge. The use of van Manen's (1977) taxonomy for the categorization of PE teachers' reflective writings was deemed as an appropriate medium for analyzing teachers' customization with pedagogically tactful practices. Having the role of a professional and emotional feedback "partner", reflective journals gave teachers the chance to critically appraise their practical knowledge, and understand how their personal philosophies interact with their classroom dynamics. Although a case study project, this research gives further evidence regarding the use of reflective writing as an effective medium of PE teachers' professional stance development. However, before such claims are supported with greater certainty, more research in the field is needed.

# Özet

# Giriş

Son yıllarda, öğretmen eğitiminde reform programlarında yansıtma büyük bir fikir olarak görülmekte ve açıklanmaktadır (Zeichner & Liston, 2013) ve bu yüzden farklı anlam ve anlayışları birleştiren çeşitli kuramsal çerçevelerle tanımlanmaktadır. Van Manen (1995) birey olarak her bir öğrencinin gelişiminde olumlu etkiye sahip olacak öğretimin sınırlarının, öğretmenin yansıtıcı düşünme ve davranma becerilerine dayandığını belirtmektedir. Dewey'nin (1933) özgün tanımına göre yansıtma "... herhangi bir düşünceyi veya önerilen bir bilgi biçimini onu destekleyen temeller ve buna dayalı olarak gelecekte oluşabilecek sonuçlar ışığında, etkin, tutarlı ve dikkatli bir şekilde ele almaktır..." (s. 9).

Öğretmenlerde yansıtma kavramını bir zekâ davranışı olarak (Calderhead, 1989) açıklayabilmek için birçok araştırmacı, yansıtmayı farklı düzey ve türde incelemiştir. Bu sürede yansıtıcı süreç hakkında farklı fikir ve konular ortaya çıkmıştır (Gore & Zeichner, 1991; Schön, 1983; van Manen, 1977; Zeichner & Liston, 2013).

Bunlar arasından, van Manen'in (1977) hiyerarşik kuramsal modeli, öğretmenlerin yansıtıcı düşünme ve uygulama sürecinde gösterebilecekleri üç farklı yansıtma düzeyine ilişkin bir sınıflandırma *(taxonomy)* ortaya koymaktadır. İlk düzey olan *teknik yansıtma*, sonuçlar yerine araçların düşünülmesine odaklanmaktadır. Burada öğretmen, öğretimin etkililiğine ve önceden belirlenmiş hedefleri gerçekleştirmede ne kadar etkili olduğuna dikkat etmektedir. Öğretmenin önceden belirlenmiş hedefleri eleştirilmemekte, yeterlikleri yansıtıcı düşünceye tâbi tutulmaktadır. İkinci düzey, öğretmenin *pratik yansıtmasıdır* ve sürecin, amacın ve çıktıların temelinde yatan mantığın analizi yapılır ve deneye tâbi tutulur. Bu süreçte, amaç ve çıktıların askıya alınmış normları ve değerleri de netleştirilmeye çalışılmaktadır. Üçüncü düzey olan *eleştirel yansıtma,* öğretimin sonuçlarını daha geniş sosyal, politik, ahlaki ve etik bakış açılarıyla ele almaktır. Bu yüksek düzeyde yansıtmanın amacı, otoritenin normları veya önyargıları olmadan öğrencilerle ilgilenmesini ve öğrencilere adaletli davranmasını desteklemektir (van Manen, 1977, ss. 226-227).

Geçmiş durumlara yansıtma yapmak, duyguları dile getirmek ve öğretmen yaşamının diğer alanları ile bağlantı kurmak için (Walker, 2006) günlük yazma, dönüştürücü öğrenmeyi (Mezirow, 1990) destekleyecek potansiyele sahip bir yansıtma yöntemi olarak, beden eğitimi (BE) (Ballard & McBride, 2010; Blair & Capel, 2011; O'Connel ve diğ., 2008) alanında da önem kazanmıştır. Günlük yazma, BE öğretmeni mesleki gelişim programlarına yerleştirilerek yansıtıcı yazma deneyimi üzerine eleştirel düşünme aracı (Deglau vd., 2006), gündelik yaşamın rutinlerine karşı bir strateji (Attard, 2007) ve BE öğretmenlerinin anlamlı mesleki öğrenmeleri için bir aracı olarak (Keay, 2006; Tsangaridou, & O' Sullivan, 1997) kullanılmıştır.

Güncel araştırma bulguları, görev yapmakta olan BE öğretmenlerinin yansıtıcı topluluklarda yer almasına ilişkin ihtiyacı vurgulamaya devam etmektedir (Standal & Moe, 2013). BE araştırmacıları boylamsal ve uygulama bağlantılı müdahalelerin gerekli olduğu konusunda hemfikirdir. Bu müdahaleler, BE öğretmenlerinin bilgi ve becerilerini geliştirmelerine ve uygulama alanlarını eleştirel bir şekilde değerlendirmelerine yardımcı olmaktadır (Kirk & Tinning, 1992).

Yukarıda belirtilenleri temel alan bu araştırmanın amacı, günlük yazmanın hem öğretmenlerde yansıtma için bir araç olarak, hem de BE mesleki gelişim programı içinde öğretmenlerin gelişim sürecini kaydetmeye yarayan bir araştırma aracı olarak kullanımını incelemektir.

Programa üç kadın BE öğretmeni katılmış ve bu öğretmenler "Anlamak için Öğretim Oyunları (AiÖO)" öğretimsel modelini nasıl kullanacakları konusunda eğitim almıştır (Bunker & Thorpe, 1982). AiÖO, öğrencilerin taktiksel farkındalıklarını ve zekâ odaklı oyun performanslarını geliştirmek için, gelişimsel olarak uygun ve düzenlenmiş oyunları uygulayan oyun merkezli öğretimsel bir modeldir (MacPhail, Kirk & Griffin, 2008; Rovegno ve diğ., 2001). AiÖO, yapılandırmacılığın öncüllerini temel alarak, öğretimi gerçekleştirirken öğretmenleri daha çok "ayakları üzerinde durmayı" düşünme ve derslerini öğrencilerin gelişimsel ihtiyaçlarına göre düzenleme konularında cesaretlendirmektedir (Butler, 2005; Light, 2008; O'Leary, 2012).

Bu çalışmada, tüm BE öğretmenleri iki aylık bir süreçte toplam 24 adet AiÖO tasarlamak ve uygulamaktan sorumlu olmuştur. Her oyunun uygulanmasının ardından, tüm öğretmenler önceden verilen rehber doğrultusunda kendi yansıtıcı günlüklerini tamamlamıştır. Günlük yazıları, üç BE öğretmeninin yansıtma düzeylerini belirlemek

amacıyla, van Manen'in (1977) üç yansıtma düzeyine (teknik, pratik, eleştirel) göre analiz edilmiştir.

#### Yöntem

Araştırmada BE öğretmenlerinin kullandığı soyut ve karmaşık yansıtma süreçlerini yakalayabilmek için nitel durum çalışması deseni benimsenmiştir (Yin, 2003). Bu desen, yazarların çalışma devam ederken olguların tanımlarını toplamasına ve veri toplama ile verilerin analizi sürecinde yeni anlamlar keşfetmesine olanak sağlamıştır.

## Katılımcılar

Araştırmanın yapıldığı dönemde, araştırmaya katılan BE öğretmenleri (Takma isimleri Maria, Joan ve Kristin olarak belirlenmiştir.), Pireaus'ta (Yunanistan) Atina Üniversitesi Spor Eğitimbilimi Laboratuvarı tarafından desteklenen bir araştırma projesine katılma isteği gösteren tek deneysel eğitimbilim okulunda çalışmaktadır. Tüm öğretmenler sözlü olarak araştırmaya katılma isteklerini belirtmiştir. Bu istekler üniversite etik kurulu tarafından da onaylanmıştır. Araştırmaya başlamadan önce tüm öğretmenler, daha önce AiÖO'ya ilişkin bir deneyimlerinin olmadığını ve uygulamalarında genellikle doğrudan öğretim yöntemlerini kullandıklarını belirtmişlerdir.

# AiÖO mesleki gelişim programı

AiÖO mesleki gelişim programı birbirini izleyen üç aşama ile uygulanmıştır. İlk aşamada, öğretmenlerin modelin felsefesini tanımaları ve modelin pedagojik ilkelerine aşina olmaları için, kuramsal çalıştaylar ve uygulama toplantıları tasarlanmıştır.

İki aylık bir süreci kapsayan ikinci aşamada, her bir öğretmen bir sınıfında 24 BE ünitesi tasarlamak ve uygulamaktan sorumlu tutulmuştur. Bu üniteler AiÖO'nun üç farklı boyutuna dayandırılarak hazırlanmıştır: Hedef, Ağ/Duvar (*Net/Wall*) ve İstila Oyunları (her bir boyutta sekiz oyun olmak üzere) (Griffin & Butler, 2005). Maria ve Kristin D düzeyinde öğrencilerden (her bir sınıf için n=25) sorumlu iken Joan B düzeyinde öğrencilerden (n=25) sorumlu olmuştur.

Dersler, her bir öğretmenin sınıfının gelişimsel ihtiyaçlarını ve Yunan BE öğretim programı tarafından belirlenmiş ilkokullar için öğrenme çıktılarını karşılayacak şekilde tasarlanmıştır. Her bir ünite uygulanmadan önce, ders planlarının elektronik kopyaları, bu araştırmanın ilk yazarına gönderilmiştir. İlk yazar burada araştırma kolaylaştırıcısı *(facilitator)* olarak bir görev üstlenmiştir. Kolaylaştırıcı, ünitelerin modelin ilkelerine uygunluğu ve bağlantısı, oyunların biçimi ve yapısı, seçilmiş etkinliklerin sunumu, soruların türü ve ifade ediliş biçimleri, oyun alanları ve araçlarının seçimi gibi konularda rehberlik etmiş ve dönüt vermiştir. Tüm bunlar derslerden önce uygulanmıştır. BE öğretmenlerinin modeli kullanmadaki bilgi ve yeterliklerini artırmak amacıyla, seçili ders gözlemleri, derslerin görüntülü kayıtları ve grup tartışmaları okulun BE ders programı çerçevesinde yapılmıştır. Her bir öğretmen, bir üniteyi uyguladıktan sonra 24 saat içinde yapılandırılmış yansıtıcı günlüğünü doldurmuştur. Bu günlükler programın sonunda van Manen'in (1977) üç yansıtma düzeyine göre tematik olarak analiz edilmiştir. Tüm günlükler, Pultorak'ın (1993) yansıtıcı sorularına göre yapılandırılmış ve öğretmenlerin eleştirel bir şekilde öz-değerlendirmelerini yapmasına yardımcı olacak biçimde tasarlanmıştır.

Üçüncü aşamada ise modelin kullanımına ilişkin farklı düşünce ve izlenimleri resmetmek amacıyla her bir öğretmenle ayrı ayrı, yarı yapılandırışmış görüşmeler gerçekleştirilmiştir. Bu görüşmelerin analizlerinin gelecekte daha büyük çaplı bir araştırma projesinin parçası olması planlanmıştır.

#### Verilerin analizi

24 adet BE dersine ilişkin yansıtıcı günlükten, yalnızca on altısı (her öğretmen için Ağ/Duvar ve İstila üniteleri) tematik analize tabi tutulmuştur. İlk sekizde olan Hedef ünitesi günlükleri, günlüklerin kodlanması sürecinde yer alabilecek iki uzmanın eğitimi için kullanılmıştır. Mandigo'ya (2003) göre AiÖO'nun hedef boyutu, (a) öğrencilerin oyun performansını ve (b) BE öğretmenlerinin AiÖO'yu anlamasını geliştirmek için basit düzeyde ve yeterlidir. Bu düşünce ile sekiz günlük, iki uzmana araştırmanın amacını ve kodlama sürecinin işlevsel değerini göstermek için ve uzmanları, gözlem ile kayıt altına almanın farklı yollarına ilişkin eğitmek için kullanılmıştır (Reid, 1982).

Verilerin analizinden önce araştırmanın ilk yazarı, günlük kodlama ölçütlerini oluşturmak için özel olarak eğitilmiş uzman (araştırmada yer almamaktadır) ile görüşmüştür. Yazar ve uzman, BE öğretmenlerinin Hedef günlüğü yansıtıcı sorularına verdikleri tüm cevapları okumuş ve bu cevapların her birini van Manen'in (1977) üç yansıtma düzeyinden birine tanımlamıştır. Bu eğitim sürecinin sonunda iki uzman arasında %85 oranında bir fikir birliği olduğu görülmüştür.

Kalan on altı günlükteki her bir soru-cevap, ham veride açık bir şekilde görülen BE öğretmenlerinin deneyimlerinin altında yatan yapıyı anlamak amacıyla, van Manen'in (1977) yansıtma düzeylerine göre kendi tematik analizine tabi tutulmuştur (Thomas, 2006). Günlük kodlama sürecinde, her yansıtıcı cümle tüm uzmanlar tarafından ayrı ayrı okunmuştur ve içeriği üç yansıtıcı boyuttan biri ile ilişkilendirilmiştir. Sonrasında ise her uzman tüm AiÖO boyutlarının sorularına özet puan atamıştır.

Örnek olarak, ardışık Ağ/Duvar ünitelerinin toplamı için, her bir uzman günlük sorularına ayrı ayrı toplam bir van Manen puanı (teknik, pratik ve eleştirel yansıtma) atamıştır. Bu puan, öğretmenin ifadesinde en çok tekrar eden yansıtma türüne göre belirlenmiştir. Aynı işlemler İstila üniteleri için de yapılmıştır. Öğretmenin verdiği cevabın toplam değerden farklı bir yansıtma düzeyine karşılık geldiği durumlarda, özel olarak tartışmak ve tekrar analiz etmek için bu durum not edilmiştir. Uzmanların özet puanları kodlamanın güvenirliğini şu formüle göre kestirmek için bir araya getirilmiştir (van der Mars, 1989): Güvenirlik=uzlaşmaların sayısı / (toplam uzlaşmaların sayısı + anlaşmazlıklar).

Analizin sonunda, iki uzman arasında %80 oranında bir uzlaşmaya varıldığı görülmüştür. Ancak verilerin analizi üzerine tartışmaların ardından neredeyse tam bir uzlaşmanın sağlanabileceği konusunda fikir birliğine varılmıştır.

## Bulgular – Tartışma

Modelin uygulandığı iki ay boyunca, üç öğretmenin de günlüklerinde yansıtmanın üç düzeyine ilişkin örnekler belirlenmiştir. BE öğretmenlerinin günlük sorularına verdikleri cevaplar, "hataları düzeltme *(fix it)*" mantığından düşüncede ve davranışlarda daha öğrenci merkezli bir odağa kaymıştır (Schön, 1987).

William vd. (2002) fizyoterapi öğretmen adaylarının yansıtıcı düşünmelerini inceledikleri araştırmalarında buna benzer bulgular ortaya koymuşlardır. Pultorak'ın aday öğretmenlerin yansıtıcı düşünme süreçlerinin gelişimi üzerine yaptığı çalışmalar (1993, 1996), öğretmenlerin alanda eğitimci olarak deneyim kazanmasıyla yansıtmanın van Manen'in modelindeki gibi birden üçe kadar gelişim gösterdiğini ortaya koymuştur. Bu araştırmada da buna benzer bir bulgu elde edilmiştir. Farklı odak noktaları olmasına rağmen, Maria, Joan ve Kristin programın teknik boyutunda yansıtma göstermeye başlamıştır. Dersin bazı anlarında eleştirel yansıtmaya ulaşmayı başarmışlardır.

AiÖO modelini uygulama ile birleştirmeye çabalarken tüm öğretmenler, temel inançlarını değiştirme yolunda paradigmatik bir değişim geçirerek aday bir öğretmen gibi davranmak zorunda kalmıştır. Çünkü öğrencilerin ilgi ve ihtiyaçlarını karşılamaya çalışırken öğretim oyunlarına yönelik taktikten beceriye doğru (tactics-to-skill) bir yaklaşım benimsemek zorunda kalmışlardır (Sweeney, Everitt, & Carifio, 2003). Bununla birlikte, öğretmenler modelin kullanımına ilişkin deneyim ve güven kazandıkça kendi öğretim biçimleri ve tüm öğrencilerin performansları arasında yeni bağlantılar kurmaya ve öğrencilerin performansına olan katkılarını görmeye başlamışlardır. Araştırmaya katılan tüm öğretmenler, modelin uygulanması sürecinde karşılaştıkları zorluklara rağmen AiÖO'nun oldukça etkili bir eğitim uygulaması olduğunu belirtmiştir. Bu bulgu araştırmacılar tarafından hoş karşılanmıştır çünkü Kirk'e (2009) göre görev yapmakta olan BE öğretmenlerinin doğrudan öğretimsel model ve stratejileri benimsediği görülmektedir. Bu durum, öğrencilerin teknik performanslarının çıktılarına dayalı ve fazla düzenlenmiş öğrenme ortamları yaratmaktadır.

Bu araştırmada her öğretmenin bu yeni uygulamanın felsefesini ve içeriğini öğrenmesi kendi özellikleri ve deneyimlerine göre farklı biçimlerde olmuştur (Nisbett, 2005). Brooks ve Brooks (1999) ile Howarth'a (2005) göre bu beklenen bir durumdur çünkü öğretimde yapılandırmacı değişimleri gerçekleştirmek kolay girişimler değildir. Ha vd. (2008) ve Cushion (2009) öğretmenlerin mesleki gelişim programları aracılığıyla kendi değişim ve gelişimlerini deneyimleyene kadar değişime ikna edilemeyeceklerini belirterek bu bulguları desteklemektedir. AiÖO ile ilişkili alan yazın da, BE öğretmenlerine yapılandırmacı güçlendirme sürecinde katkı sağlayacak daha çok kaynak ve stratejiye ihtiyaç olduğunu belirterek bu ifadeyi desteklemektedir (Roberts,

## 2011).

Araştırma süresince tüm öğretmenlerin yansıtıcı düşünce örnekleri sergilemesine rağmen yalnızca Joan ve Kristin programın sonunda eleştirel yansıtmadan örnekler sunmuştur. Williams ve Wessel (2004) günlük yazmanın eleştirel düşünceyi destekleyebileceğini ifade etmektedir ancak günlük yazma, yazma becerileri gelişmemiş bireylerde eleştirel düşüncenin artırılması için pek de uygun görülmemektedir (McCormack, 2001). Maria'da gözlenen durum bu olmuştur. Maria günlüklerin kendini ifade etmek için güvenli yerler olduğunu ifade etmesine rağmen (Pinkstaff, 1985) düşüncelerini kâğıda yazmak yerine konuşmayı tercih ettiğini belirtmiştir. Bununla birlikte, Maria dışında diğer öğretmenlerin uygulamada yeni düşünce biçimine güven oluşturmaları için daha çok zamana ihtiyaçlarının olduğu görülmüştür. Ballard (2006), Deglau vd. (2006) ile Crawford, O'Reilly, ve Luttrell (2012), özellikle bol etkinliğe dayalı çalışma takvimi olan BE öğretmenleri için boylamsal müdahalelerin yapılmasına ihtiyaç olduğunu belirtmektedir. Böylece öğretmenlerin eleştirel yansıtma sürecine alışmaları sağlanabilir.

## Sonuç

Mesleki ve duygusal olarak dönüt sağlayan bir "ortak *(partner)*" rolüne sahip olan yansıtıcı günlükler, öğretmenlere uygulamaya ilişkin bilgilerini eleştirel bir biçimde değerlendirme fırsatı sunabilir. Böylece öğretmenler sınıf içi dinamikler ile kişisel felsefelerinin nasıl etkileşime geçtiğini anlayabilir. Ancak bu iddialar kesin bir şekilde ortaya atılmadan önce alanda daha çok araştırmanın yapılmasına ihtiyaç bulunmaktadır.

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