A Case Study of an EFL Teacher's Personal & Professional Development: Employing Repertory Grid Elicitation Technique

Şaziye Yaman

Abstract

This study presents a knowledge elicitation approach; the Repertory Grid (Repgrid) Elicitation Technique. It describes this technique based on Kelly's (1955) Personal Construct Psychology. The researcher aims to presents a research investigating an ELT teacher's development through an in-service program in which repertory grid is used as a research tool. The grid technique reveals not only the change in the content but also in the structure and organization of the participant's construct system at the end of the study, which lasted a full academic year long. The study emphasizes the high potential of the Repgrid as a tool for reflection and provides useful insights into the personal and professional development of teachers. The findings suggest that the Repgrid promotes reflective process and teachers' self-awareness, and serves as a trigger for change and development.

*Keywords***:** Repertory grid, constructivism, in-service teacher development, reflection, content and structure analysis

Introduction

Constructivism has played an important role in education since it attempts to understand people with a "man-the-scientist" approach (Kelly, 1955). In educational description of constructivism, the knowledge or mental constructs learners bring with them to education and their meaning is intimately connected with their personal experiences and the context in which they occur (Carr et al., 1994). Constructivist philosophy assumes that learning is essentially an active, situated and social process. This theory acknowledges that the teacher is not a transmitter of knowledge but rather a facilitator and provider of experiences from which learners will learn. Kelly's (1955) theory of personal construct psychology suggests that "teachers learn when they are able to reflect on and test out their personal theories by means of direct personal experience" (Roberts, 1998, p. 30). Sendan (1995, p. 35) points out the link between reflection and Kellyan theory. He addresses Schön (1983) who refers to teachers (in higher education, Zuber-Skerritt, 1992; Yumru, 2000) as reflective practitioners, who examine, reformulate, and test their tacit knowledge and understandings of their practice. Both Kelly and Schön conceptualise development as a personal matter; teachers as active agents of their own development.

We believe that tacit knowledge is embedded in practice. While trying to make sense of a practical problem, the reflective practitioner also reflects on the understandings which are implicit in his/her actions. This process improves his/her

Şaziye Yaman, Asst. Prof., Department of English Language and Teaching, Faculty of Education, Mersin University, Yenişehir Campus 33100 Mezitli- Mersin syaman@mersin.edu.tr

practice. The practical problems can not be solved by pure theory but by adopting a course of action. Theory arising from practice and practice improved by theory lead to change. Theory and practice may be integrated by the teacher who is a "reflective practitioner" and a "personal scientist" (Zuber-Skerritt, 1992). So, we suggest in this study and attest to the fact that the success of research in teacher development is dependent on the active participation of teachers in the research process in which their own problems and practices are studied - the research process in which teachers are not seen as the subjects but participants.

From the above perspective, we have selected Kelly's theory, which is a potential alternative to dominant behaviourist theories. Kelly (1955) asks us to switch our perspective of human behaviour. Instead of thinking about "man-as a-biological organism," as the behaviourists recommend, he suggests that we think in terms of "man-the-scientist" who continually puts his/her constructions to test. Constructivism accepts that each learner has different experiences and prior knowledge; so, they may construe different meanings in the same learning context (Osborne & Freyberg, 1985; Fensham et al., 1994). The constructivist theory accepts the reality, and recognizes the relationship between people's thoughts and the universe, which are not static but changing continually.

According to constructivist philosophy, then, knowledge is a social construct that is gained through interacting with other people. It requires pre-existing knowledge to interact with the new experiences. Personal knowledge is constitutive of the person: that is, a person does not *have* a construct system, but *is* a construct system. And constructs are often identified by how they function and work among the individuals involved. Kelly's theory of personality should be fertile in creating new ideas (Zuber-Skerritt, 1992).

Drawing on the above arguments, we may, first, suggest that teachers acquire knowledge just like their students. They start from their personal knowledge, extend it by a continuous and cyclical learning process, formulate their hypotheses, test them, confirm or reject them and start a new cycle (Zuber-Skerritt, 1992). Teachers, like other learners, reshape their ways of understanding, their knowledge structures and the meanings that they attribute to events and ideas as a result of reflective process. They continually reconstruct their views of each other. Kelly proposes that people organize their experiences by developing bipolar dimensions of meaning, or personal constructs. Perceptions are represented by what Kelly called "constructs". Perception refers to the participants' recognition and understanding of events, objects, and stimuli through the use of senses.

Constructs are bi-polar concepts which can be used to discriminate between events. That is, similarity or lack of similarity can be represented. These events are called elements and can be objects, situations or even individuals. Based on past experiences new or current elements are rated on the basis of constructs. Constructs themselves are interrelated and may be represented by hierarchies or networks.

Drawing on the above arguments, this study contributes to the field in many ways. Firstly, from the nature of the structure and content of teachers' construct system through the teacher development program perspective, teachers have shown significant

changes which emerged from the first to the second grid administration. And this result is consistent with Kelly's theory. Moreover, teachers, in this study, as other individuals, have their own personal implicit theories of teaching and learning, which are shaped by their personal experiences. The teachers' involvement in learning and development process has brought growth naturally; and this has brought change inescapably. This change is quite variable between the teachers. Teachers, as individuals, need to experience the change personally. Because change is not "immediate, complete, at the same level for everybody but open- ended and differ from person to person" (Bailey, 1992, p. 254).

Secondly, from the perspective of conceptual changes in the content of teachers' personal theories due to a teacher development program, the teachers have added more constructs to their thinking system, addressing different sides of teaching and learning. This experience led them willingness for development and readiness for change. There is no single ideal model that meets every teacher's or school's needs and interests for development. And teachers' development should indicate that teachers should be involved in determining their own professional development needs and should be based on the needs of teachers as identified by the teachers themselves.

Thirdly, teachers have experienced learning by doing. They have tried, evaluated, modified, and later tried again. Their involvement in decision making process has given them a deeper awareness about teaching and learning. Hence, they have become more critical, reflective and expert. Teachers have taken the initiative to develop their teaching and naturally become responsible from their own learning. In this study, teachers' development is construed in input and inquiry bases. The teachers have linked their prior knowledge to new information in input sessions, and have learnt by reflecting and solving their own and identified problems.

Lastly, the findings regarding the changes of the teachers' behaviours at the end of the program are the comparison of their repertory grid data and the observation notes, and observation checklists. These tools helped to see the teachers' construction/reconstruction of personal theories and decisions in their actual behaviours.

Our findings are also consistent with constructivist principles which suggest that learner's construction and reconstruction of new knowledge facilitate approaches to behavioural change and Kolb's (1984) experiential learning cycle which was used in a wide range of learning or behaviour change contexts. Kolb , consistent with Kelly, thought of learning as an ongoing process - a continuous series of cycles.

The Study

This study was conducted with a group of ELT teachers. Only one of the participant's process in the program was presented. The teacher, in this study, was not approached as someone who needs to be trained, but more as an individual who can take the responsibility of her own learning. Thus, we are concerned not only with the teacher's learning (input) but also her learning by doing (classroom inquiry). So, in order to reach our goals, we set up an in-service teacher development program in which input and classroom inquiry phases were involved. From this concern and

implementation strategies, this study has covered what the existing studies lack (i.e., lack of approach, lack of design, lack of tools). We have used learning logs and diary of the teachers in order to triangulate the findings.

The Repertory Grid Elicitation in the Study

One of the most popular indirect knowledge acquisition techniques is the repertory grid (see Appendix) which is a knowledge analysis technique derived from Kelly's (1955) personal construct theory. The repertory grid procedure followed in this study is similar to those outlined in Sendan (1995, pp. 91-99). We have employed individual elicitation method and used triadic elicitation technique. In the following paragraph, we will both introduce the process of elicitation and how we have elicited the participant's personal theories in the context of "effective language teaching" in this study.

At the beginning of the repertory grid session with the teacher, the grid was introduced to the participant and was explained how to fill it in. In terms of the validity of the data, the constructs were elicited from the participant rather than provided by the researcher. During the construct elicitation, we avoided the imposition of constructs. Constructs elicited are merely verbal labels, and their meanings would be ascertained by follow-up interviews. The analysis of the grids was expected to give us an idea of the teacher's already existing personal theories. The construct elicitation process was as follows:

The teacher was asked to write down her own constructs regarding "the features that lead to effective language teaching" by using her own words. To do this, the teacher was asked to think of three effective (E1, E2 and E3), three average (or typical) (T1, T2 and T3) and three ineffective (I1, I2 and I3) teachers that she has known and to note them in order of effectiveness. Nine teachers (elements) were coded from 1 to 9 as E1, E2, E3 (Effective), and T1, T2, T3 (Typical), and I1, I2, I3 (Ineffective). The teacher's constructs were elicited using the triadic elicitation technique. That is, the elements, teachers she knows, were not supplied by the researcher. They were provided by the participant. The elements provided by the participant and that were coded were randomly chosen for the purpose of comparison. They were provided with random triads and asked to distinguish "which two of the three teachers were similar to each other and thereby different from the third." After the selection of pairs, they were asked "*in what ways the two are similar to each other in a way that distinguishes them from the third*." The responses were recorded on the "emergent" (similarity) pole. Then she was asked "*what they thought made the third, single element distinct from the pair on the same dimension*" and the responses were recorded on the "implicit" (contrast) pole. The same procedures were followed to elicit as many constructs as she was able to offer (Sendan, 1995, p. 96). The teacher was required to use English as a medium while filling out the grids. However, in case of difficulties in expressing themselves, (especially the terminology in ELT) what she meant was discussed by the researcher. However, in some cases, constructs were elicited in Turkish and then translated into English. But what she would like to express

was talked over and agreed upon. We have employed a five-point (1 to 5) rating scale. The teacher assigned each element a rating which reflected its relative position to construct poles (1 represented the closest fit to the similarity pole, 3 the mid-point, and 5 the closest fit to the contrast pole). Then, she was asked to rate her current self and ideal self as teachers on the same constructs. Later, she was asked to choose five constructs among the ones she had provided and to rank order them in order of importance. The rationale for doing this was, firstly, to find out each teacher's most important (top priority) constructs. Secondly, this process was to investigate whether these most important constructs have undergone any change in the analysis of content and structure, and whether they were observed in their teaching. Finally, the teacher was interviewed in order to check the constructs and ratings as well as to clarify any unclear points for the researcher. The reason for doing this was to enable us to collaborate with the teacher in interpreting the grid data. This procedure was repeated at the end of the program (as a post measure). For the second administration of the grids, the teacher's previous constructs were provided without the original ratings and rankings. The teacher was asked to work on her first grid. She was reminded that she might add new constructs or delete ones already existing in the grids. Then she was asked to re-rate her constructs, and to rank order them once again.

Her grids were analysed by means of Focus and Exchange Grid analysis (The *RepGrid2 Manual*,1993). The analyses and the differences between the two grids were expected to demonstrate whether or not she had changed regarding the structure of the constructs. In order to investigate what might have led her to change, follow-up interviews were run and she was asked what and/or who played a role on their change (i.e., participants, input sessions, materials used, presentations, observed classes, personal experiences, the researcher, classroom inquiry, action research project writing or something else).

It is worth mentioning that the application of the grids at both times appeared to be appropriate as she has had sufficient experiences in ELT to carry out the task. That is, she did not have difficulty in terms of choosing elements and distinguishing among them as effective, typical and ineffective. Besides that, she did not have much difficulty in terms of verbalising the similarities or differences of teachers in their constructs. At the end of the grid administration, she was knowledgeable enough about what to do and how to express her constructs. So, the second grid administration took less time than the first one.

The analysis techniques of this study were mainly based on the analysis of data obtained from the repertory grids, the follow-up interviews with the teachers, classroom observation notes and classroom observation checklists, and the feedback sessions. Above all the teacher's learning logs and research diary were used to triangulate the findings obtained through repertory grid data.

The RepGrid 2 Computer Program

The RepGrid2 (1993) computer program and the manual were developed by the Centre for Person-Computer Studies in Canada. Repertory grid is a computer-based tool providing an integrated set of tools for elicitation and analysis of elements and constructs in a given domain. It combines a number of different techniques, for construct elicitation, modeling, and comparison. The main tools in the RepGrid 2 computer program was explained by Shaw and Gaines (1995).

FOCUS Analysis

The Focus program was used in order to find out the structure of constructs obtained from the teacher both at Time 1 and Time 2. FOCUS sorted the grid for proximity between similar elements and similar constructs (Shaw & Gaines, 1995). The Focus analysis of grids enabled the researcher to see matches and links between elicited constructs and elements. It "hierarchically clusters elements and constructs within a sub-domain prompting the expert to add higher-level constructs structuring the domain" (Shaw & Gaines, 1995, n.p.). More specifically, with the Focus program, we could present the information as a grid showing the specific values for all the constructs and elements, using shading as a guide to those values, with lower numbers represented by a lighter shade. The diagram also had dendograms showing the elements and constructs that had the greatest similarity statistically (PC Pack). To see the construct and element relationships separately helped us to explain the function of the repertory grid tool. The cut off point between the constructs and elements was 80%. That is, the minimum level for the construct and element associations was 80 %.

Exchange Grid Analysis

The two grids obtained from the teacher as pre and post measures were subjected to Exchange analysis. To identify the patterns of structural change in the teacher's personal theories between the beginning and the end of the in-service teacher development program, we adopted Exchange grid analysis. The analysis enabled the researcher to explore the constructs and elements that fell below 80%--the common significance level in repertory grid research and which is an indication of structural change. Those constructs and elements over this 80% level were considered as stable, indicating no structural change between Times 1 and 2.

The Participant

The participating teacher has been teaching English for two years and working in a state school. She has taught young learners. She graduated from the University of Mersin, department of English Language and Literature. She is interested in methodological side of language teaching. She has believed that knowing methodology well is the key of being a good language teacher. Her classroom inquiry problem,

therefore and naturally, during the process was to examine how she can increase her students' motivation in English by using different approaches and activities and using extra materials with her 7th grade students. She has searched internet and visited some centers introducing different lesson plans and full of inserted activities and extra materials. She was very keen on learning and trial-error process. And she was always eager to discuss what she has learnt new and share her new experiences.

A. The Content and Structure of the Teacher's Personal Theories Regarding Effective Language Teaching at the Beginning of the Study

The teacher's grid data consists of 11 constructs and 11 elements. Her FOCUSed grid shown in Figure 1 illustrates the construct and element trees at 80% cut off point.

Construct Links

In her FOCUSed grid, there appears one cluster, consisting of 5 constructs with an isolated construct (C4), which is closely linked to this cluster (at 88.6% level). 5 isolated constructs are linked to each other at various levels but have not formed a tight cluster. In the clustered constructs, we notice that only one characteristic of teachers (C10) is clustered with 4 of her constructs (C2, C3, C5, and C6).

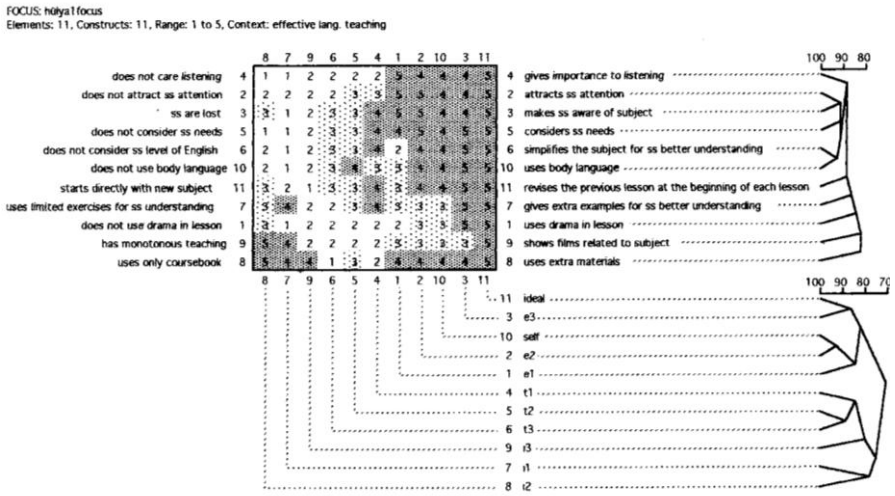

Figure 1. The Teacher's FOCUSed Grid at Time 1

Drawing on the established links, she seems to think that those teachers who make students' aware of what they are learning and who consider their needs can easily attract students' attention in class. In other words, if teachers do not consider students' needs and do not attract students' attention, then students get lost in class.

Moreover, we see that the construct, *gives importance to listening* (C4) seems isolated, rather loosely attached to the constructs in the main cluster. She thinks that giving importance to speaking is an important feature of effective language teaching but has not established close links with any of the particular constructs yet.

The constructs *revises the previous lesson at the beginning of each lesson* (C11), gives *extra examples for students' better understanding* (C7*), uses drama in lesson* (C1), *shows films related to subject* (C9) and *uses extra materials* (C8) are isolated constructs, having a relationship with each other at 81.8% match level. The reason/s for having so many isolated constructs in her Time 1 grid may be that she can not directly associate these constructs with others yet and organise her personal beliefs neatly. Among these five isolated constructs, two of them (C11 and C7) were perceived to be very important characteristics of an effective language teacher by the teacher.

Element Links

The teacher's FOCUSed grid produced two main element clusters (see Figure 1). She perceives herself to be very close to her second most effective teacher (E2). This association may suggest that she perceives herself as an effective teacher already. When we analyse her ratings to identify how she construes self as a teacher, we see that on 8 out of 11 constructs, she was relatively close to the preferred construct pole, as with her ideal self as teacher. The constructs she was undecided about were *gives extra examples for students' better understanding* (C7), *shows films related to subject* (C9), and *uses extra materials* (C8).

In the second cluster, the associations reveal that she has got a clear view regarding the distinctive features that distinguish the typical and ineffective teacher groups as well as the features of the teachers in the effective group. However, the level of similarity of each teacher group does not reveal a high level of matching.

Another point worth mentioning here is that although she sees her most effective teacher as E1, her ratings show that E2 is more effective than her E1 (on 5 out of 11 constructs) (see Figure 1). And E3 seems to be her model teacher since this teacher has the closest links with her ideal self as teacher.

B. The Content and Structure of the Teacher's Personal Theories Regarding Effective Language Teaching at the End of the Study

Construct Links

The teacher's Time 2 grid data consists of 18 constructs and 11 elements. Her FOCUSed grid shown in Figure 2 illustrates the construct and element trees drawn at 80% cut off point.

Her FOCUSed grid at Time 2 produced one rather isolated pair and a large cluster consisting of several sub clusters. There appears to be a sub cluster consisting of 4 constructs, a second sub cluster consisting of a tight pair and a subordinated construct, a third sub cluster consisting of 4 constructs; two of which form a tight pair with the other two in subordinated position, and one another rather loose pair, and 3 rather isolated constructs within the large cluster and close to the tight pair and other sub clusters at the same level.

At the top of the grid, she perceives that one way of using extra materials is to show films related to the subject. To her, making students aware of what and how they are learning, and simplifying the subject in order to increase students' understanding are important features of effective language teaching. And also, teachers who can increase students' awareness and simplify the subject for students' better understanding are those who consider students' needs and encourage students' speaking English in class. In the same cluster, she perceives that giving extra examples for students' better understanding and using drama in the lesson are the characteristics of teachers who are open to change.

Taking into account the construct associations in the cluster, we may assume that she thinks that effective language teachers are those who have good classroom management, are active during the lesson. Those teachers are assumed to give importance to listening and teaching well. To her, teachers who teach well are those who have got good classroom management strategies. Besides they are always active during the lesson and listening skill is one of their priorities.

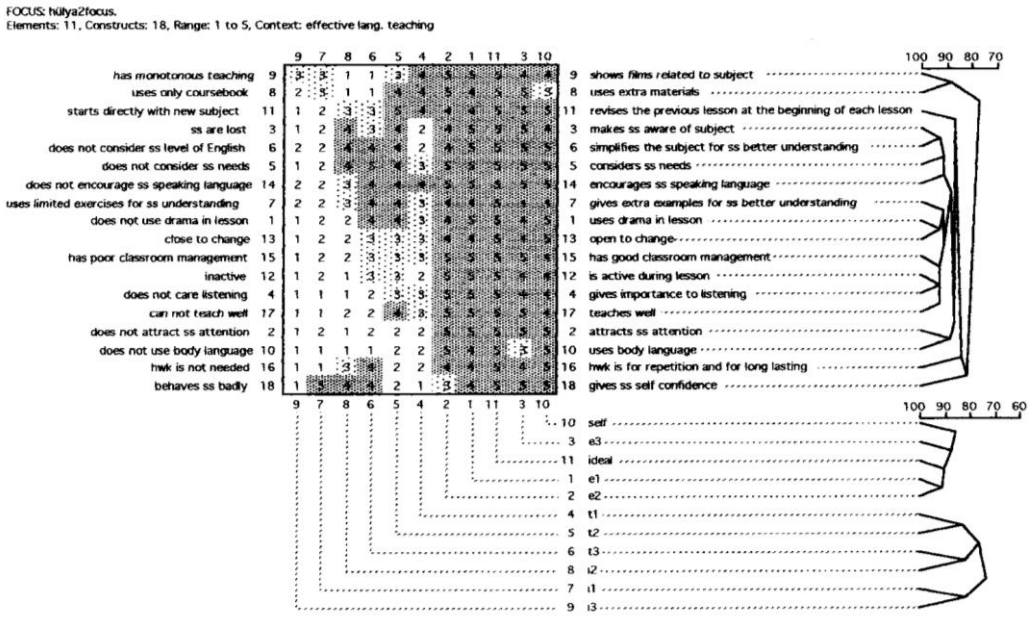

Figure 2. The teacher's FOCUSed Grid at Time 2

Attracting students' attention is her foremost construct. She thinks that using body language is a way of attracting students' attention. She sees *gives students self confidence* as one of her most important constructs in the rank order at Time 2, not matching highly with any of the construct clusters in the grid. Three isolated constructs (C11, C16 and C18) may be construed as features possessed by some effective language teachers, but not as features that lead to effective language teaching.

Element Links

The FOCUS analysis of her Time 2 grid produced two main element clusters (see Figure 2). In the first main cluster, we see that all effective teachers with ideal self as teacher form a separate group. From the associations, we may assume that she thinks that effective teachers and her ideal and current self as a teacher possess very different characteristics than that of her typical and ineffective teachers. Besides this, she distinguishes features of effective language teachers relatively similar to ideal self and self as a teacher. When we look at this main cluster of the grid, we see that she places herself as a teacher who has got the characteristics of an effective teachers and ideal self as teacher. This association may suggest her limited perceived need for change. When we analyse her ratings to identify how she construes self as teacher, we see that in sixteen out of eighteen constructs, she was close to the preferred construct pole, as with her ideal self as teacher.

In the second main element cluster, we observe that her typical and ineffective teachers form a separate cluster. The associations reveal that she has not got a clear view regarding the features that distinguish the teachers in the typical and ineffective groups as much as the features of the teachers in the effective group. While two of her most typical teachers (T1 and T2) form a pair, T3 is viewed similar to I2 and her most and the least ineffective teachers (I1 and I3) are viewed similar to each other at very low levels of similarity.

Changes Observed Between Time 1 and Time 2

Content: The comparison of her two grids regarding the changes in content reveals significant results. Her second grid reveals that she has incorporated seven additional constructs in her repertoire between Time 1 and Time 2. Another point to be mentioned between 2 grids is that she has not cited any of her Time 1 high priority constructs in the rank order at Time 2. She has cited 2 different Time 1 constructs (2 and 6) as the most important constructs at Time 2 grid. The rationale for content changes between Time 1 and Time 2 may be due to her involvement in a developmental process within which she tests her existing theories in light of the new experience and information gained.

Structural Change: The discussion about the structural changes in her grids at Times 1 and 2 will be based on the exchange grid analysis below.

C. The Exchange Analysis of the Teacher's Time 1 and Time 2 Grids

The exchange analysis of the teacher's FOCUSed 1 and 2 grids shows that the construct consensus between the first and the second grid is 36.4% and the element consensus is 36.4% over 80% match level.

Construct Changes

Significant structural changes are observed in her exchange grid. These significant changes (at 80% cut off point) took place in 7 out of 11 constructs. These changes are: (C7; 77.3%) *gives extra examples for students' better understanding*, (C5; 75%) *considers students' needs*, (C6; 75%) *simplifies the subject for students' better understanding*, (C10; 72.7%) *uses body language*, (C1; 65.9%) *uses drama in lesson*, (C8; 70.5%) *uses extra materials*, and *shows films related to subject* (C9; 63.6%).

At the beginning of the study, *gives extra examples for students' better understanding* (C7) and *uses drama in lesson* (C1) were two of her isolated constructs. These two constructs formed a tight pair with each other at 90.9% match level at Time 2. They were placed in a large cluster. Another two isolated constructs (C9 and C8) at Time 1, having no close relationships with any of the constructs directly, formed a pair at Time 2 (at 88.6% match level).

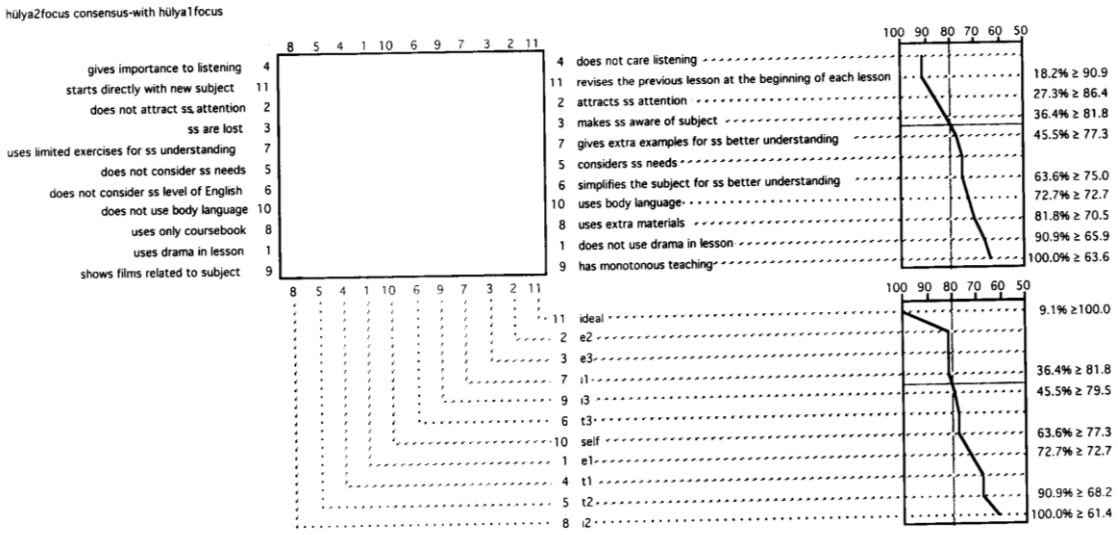

Figure 3. The Exchange Analysis of the teacher's FOCUSed 1 and FOCUSed 2 Grids

Constructs 5 and 6 were placed in a cluster and *considers students' needs* (C5) subordinated the pair, *attracts students' attention* (C2) and *makes students aware of subject* (C3) whereas construct 6, *simplifies the subject for students' better understanding*, formed another pair, with *uses body language* (C10) at Time 1. However, *considers students' needs* (C5) subordinated the pair constructs (C3 and C6), *makes students aware of subject* and *simplifies the subject for students' better understanding* at Time 2. While construct 5 subordinated construct 3 at Time 1, it became a subordinate construct again at Time 2 with constructs 3 and 6.

While one of her top priority constructs, *uses body language* (C10) formed a tight pair with *simplifies the subject for students' better understanding* (C6) at Time 1, this construct formed another pair with one of her Time 2 high priority constructs, *attracts students' attention* (C2) at 88.6% match level.

The exchange analysis of the teacher's Time 1 and Time 2 grids revealed that she seemed to have gone through a process of integration and reorganisation of more than half of her constructs in light of the experiences she had been involved in. Furthermore, she must have reflected on relations between her new experiences and her previously hypothesised constructs.

Element Changes

When we examine the changes that took place in the element structure, we come up with changes in the way she perceived things. These are; I3 (79.5%), T3 (77.3%), self as a teacher (77.3%), E1 (72.7%), T1 (68.2%), T2 (68.2%) and I2 (61.4%) over 80% cut off point.

If we look at the teacher's exchange grid, we see that all of her typical teachers (T1, T2 and T3) have gone through a structural change. At the beginning of the study, all of her typical teachers formed a sub cluster, and were placed in a typical and ineffective teacher cluster. She started to view her T1 as possessing more common features with T2 and her T3 as possessing more common features with her I2. At the end of the study, she does not seem to have established a clear figure in her mind regarding her typical and ineffective teachers who have been grouped separately. Although she sees her typical and ineffective teachers in a cluster at both times, she does not distinguish them by putting them into separate groups or ranking them from the most to the least at Time 2. This may suggest that she is still undecided about the features of typical and ineffective teachers.

The other elements that showed structural changes are I2 and I3. At the beginning of the study, her I2 formed a pair with I1, and I3 remained in isolation between her I1 and I2 and her typical teacher clusters. However, at the end of the study, I1 and I3 were associated similarly. I2 lost its ineffective position and formed a pair with one of her typical teachers (T3).

Another element, E1, has shown structural change between the two time periods. We may speculate that she sees her second most effective teacher (E2) as much closer to her first most effective (E1) teacher. She seems to have established a clearer

idea in her mind regarding the features of this teacher as she has formed a pair and grouped all her effective teachers together with her ideal and self as a teacher.

Another point we should deal with is that her perception of self as a teacher showed significant structural change. As we mentioned before, in her first grid, she found self as teacher as having the qualities of E2 and E1. This change is also reflected in her ratings of herself in each construct in two of her grids. That is, in her Time 1 grid, she viewed self as a teacher close to the preferred pole on 8 out of 11 constructs. However, she identified her weaknesses on some constructs; giving extra examples for students' better understanding, using drama and showing films related to students' subjects. At her Time 2 grid, on the other hand, she started to view her current self very close to her effective and ideal self as teacher. She seems to be undecided about self as a teacher only on one construct, which is using extra materials. This may suggest that, she has been in the process of testing her own personal theories in terms of the effectiveness she attached to the elements in the light of the new experience she has been involved in.

Regarding the changes of the teacher's elements had gone through, we may conclude that the experiences she has gained and the process she has involved in led her to rethink her views on the teachers she knows. The experiences in her classroom inquiry, her readings and her observed classes and the feedback she got as well as her personal experiences must have played important roles on this change. Marland (1998), on this issue, points out that

"Revision of practical theories of teaching involves a recurring cycle of activities familiar to action researchers viz. planning classroom activities, implementing and observing those activities and reflecting on them." (p. 20)

The teacher's critical thinking and reflections during the process of classroom inquiry contributed to her action research project writing as she revised her personal and practical knowledge and theories. Thus, she attempts to change her teaching impeded and rendered more effectively (Yaman, 2004). As can be seen from the analysis, change to one component inevitably resulted in change in the others. So, her thinking and theories in action have undergone a major transformation.

Conclusion

The repertory grid and the interviews suggest that both the content and the structure of the teacher's personal theories regarding "the features of a teacher that lead to effective language teaching" showed significant changes. The findings are consistent with Kelly's personal construct psychology and the study carried out by Sendan, (1995) who asserts that

Structural changes observed in individual's grid data were in the form of elaboration, restructuring, and clarification of the existing construct system by means of a cyclical process of consecutive and collateral loosening and tightening of construct associations in the construct subsystems. Furthermore the structural changes were not necessarily caused by new constructs introduced into the existing construct system. In

some cases, they were in the form of clarification of the loose construct associations independent of additional constructs. (p. 219)

Using repertory grid as a research method, we have been able to gain access to and monitor changes in the teacher's personal theories with relatively less imposition of the researcher's own construction of the issues than would have been possible with methods such as observations, questionnaires or checklists (Sendan, 1995). The repertory grid allowed the teacher to systematically examine elements from a field of interest that construct her framework for understanding the field. The grid allowed the teacher to generate and distinguish the characteristics of one teacher from another.

The repertory grid data provided by the FOCUS program revealed an effective way for this study to access the constructs used by the teacher. We could easily see the relationship between the constructs of the teacher and the changes which emerged from the first to the second grid administration. Repertory grid data obtained from the teacher suggests that the teacher's personal theories were "highly idiosyncratic, complex in nature, hierarchically organised in structure, and potentially open to change on the basis of validation or invalidation of the theories put the test" (Pope, 1985 in Sendan, 1995, p. 226).

Our repertory grid and interview data obtained from the teacher at Times 1 and 2 suggest that both the content and structure of the teacher's personal theories showed notable changes. This result is consistent with Kelly's theory and the proposed teacher development, which is "for investigating the personal and unique process of development of individual teachers" (Ben-Peretz, 1984, p. 104).

The changes in content and structure of personal theories of the teacher and the increase in the number of constructs between Times 1 and 2 revealed that the teacher was involved in a decision-making process and she became the agent of her own change, rather than just being told or seeing pre-determined solutions for her problems. The patterns of changes in the content of personal theories of the teacher suggests that from the beginning to the end of teacher development program, there has been a gradual expansion in the repertoire of the teacher's constructs due to the process she has been involved in (Yaman, 2004).

Teachers, naturally having different experiences, priorities and starting points, have different knowledge, skills and beliefs about learning and teaching. Most of their knowledge which, we assume, is practical and tacit, and should be uncovered through meaningful, systematic problem-solving approaches through integrating theory and practice as well as reflection (Winkler, 2001).

Furthermore, the teacher, in this study, as other individuals, has her own personal implicit theories of teaching and learning, which are formed by her personal experiences. The teacher's involvement in learning and development process brought inevitable change. This change was in a process in which she went through a process of determinating, contemplating, and revising her personal beliefs. The process of change she was involved in was the result of her experiences and the restructuring and reconstruction of her personal beliefs. It was neither sudden nor complete.

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Bir İngilizce Öğretmeninin Kişisel ve Mesleki Gelişmi Sürecinin Dağarcık Örgüsü Tekniği ile İncelenmesi

Özet

Bu çalışma bilginin ortaya çıkartılması amacıyla kullanılan "Dağarcık Örgüsü" ("Repertory Grid") tekniğini tanıtmaktadır. Bu teknik Kelly'nin Kişisel Kurgu Kuramına bağlı olarak açıklanmaktadır. Araştırmacı bir İngilizce öğretmeninin hizmet-içi gelişimini "Dağarcık Örgüsü" tekniğini kullanarak incelemiştir. Bir akademik yıl süren çalışmanın sonunda "Dağarcık Örgüsü" tekniği sadece içerikteki değişimi değil, katılımcının yapısal sistemindeki yapı ve düzen değişikliğini de ortaya çıkarmaktadır. Çalışma "Dağarcık Örgüsü" tekniğinin özyansıtma sürecindeki potansiyel rolunu vurgulamakta ve öğretmenlerin kişisel ve profesyonel gelişimlerine yönelik aydınlatıcı bilgiler içermektedir. Bulgular "Dağarcık Örgüsü" tekniğinin özyansıtma ve farkındalık süreçlerini desteklediğini ve değişim ve gelişim için tetikleyici rol oynadığını göztermektedir.

Anahtar sözcükler: Dağarcık Örgüsü, yapısalcılık, hizmet-içi öğretmen yetiştirme, yansıtma, içerik ve yapı analizi

Appendix A

REPERTORY GRID ELICITATION PAPER

Interviewee: **Class:** **Date:** **Category:** **No.:**

No. of Constructs	Emergent Constructs (Similarities)	Rating Scale 1 2 3 4 5											Implicit Constructs (Contrasts)
	Elements	E1	E2	E3	T1	T2	T3	I1	I2	I3	Self	Ideal	Elements
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													

Rank Order: 1. 2. 3. 4. 5.

(Source: Sendan, 1995)