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The correlation of students’ views on constructivist teaching environment and teachers’ student control ideologies

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The purpose of this study is to examine the correlation between elementary teachers’ student control ideology and students’ views on constructivist learning environment. In this study, the correlation between the views of teachers working in elementary schools on student control ideology and students’ views on constructivist learning environment was examined. The study was carried out in 2010 to 2011 academic year in Konya. For this purpose, “correlations survey method” was adopted in this study in order to find answers to the research questions. According to Pearson’s moments correlation analysis carried out in the study, it was found out that there was a negative moderate significant correlation between teachers’ student control ideologies and students’ views on constructivist learning environment. On the other hand, according to the results of the regression analysis, it was found that teachers’ student control ideologies predict students’ views on constructivist learning environment significantly. Similarly, it can be stated that as teachers’ views on student control ideologies increase, students’ views on the constructivist learning environment decrease.

Key words: Student control ideology, constructivist learning environment, elementary education.

INTRODUCTION

The way people learn is a most complex phenomenon and many theories have been put forward on this very issue (Schunk, 2008). Each theory of learning defines the concept of learning from its own perspective and brings a different approach to the learning process (Senemoğlu, 2004). Constructivism is one of these theories which tries to explain the nature of learning (Brooks and Brooks, 1999).

Constructivism is not a new concept (Terhart, 2003). Many traces of constructivist thought can be found in history. It has its roots in philosophy and it has been applied to sociology and anthropology as well as cognitive psychology and education (Kinnuncan-Welsch and Jenlink, 1998). It has been stated that the first constructivist philosopher is Plato (Hawkins, 1994), whereas Giambattista Vico is presented to be the first constructivist in the literature (VonGlasserfeld, 1994). However, it is a common belief that the term constructivism was derived from Piaget’s (1955) reference to his as constructivist, as well as from Bruner’s (1966) description of discovery learning and from Vygotsky’s (1978) views on social-cultural learning.

Constructivism as an epistemological view of knowledge acquisition emphasises knowledge construction rather than knowledge transmission (Fosnot and Perry, 2007). Knowledge construction is based upon students’ previous knowledge experiences. So, the new knowledge is integrated with the previous intellectual constructs.
Integration of such experiences is facilitated through social and collaborative natures of learning (Schunk, 2008). The general sense of constructivism is that it is a theory of learning or meaning making, that individuals create their own new understandings on their prior knowledge (Richardson, 2003). In other words, constructivism is a learning theory contenting that learners construct their own understanding based on prior learning and social interaction (Brooks and Brooks, 1999). According to Schunk (2008), constructivism is a psychological and philosophical perspective contenting that individuals form or construct much of what they learn and understand. The way in which people try to make sense of situations or how people create meaning is the main concern of constructivist learning theory (Wilson, 1996). Constructivism is an epistemological view of learning rather than teaching. So, constructivist learning applications predict a rich and interactive learning environment which supplies student the required knowledge to solve problems (Gagnon and Collay, 2001). In the learning process, students are expected to produce their own products by searching, doing decisions, collaborating, using high level of thinking skills and using their own creativeness (Demirel, 2005). Thus, constructivists believe that certain activities and enrichments in the environment can enhance the meaning-making process, such as active learning, using kinaesthetic, visual and auditory modalities, creating opportunities for dialogue, fostering creativity and providing rich, safe and engaging environments (Brooks and Brooks, 1999). Constructivist learning is grounded in students’ active participation in problem-solving and critical thinking (Fer and Cirik, 2007). So, knowledge cannot simply be transferred from teachers to students, it has to be conceived (Von Glasserfeld, 1996). The essence of constructivism is that students actively construct knowledge (Cunningham, 1992). Hence, the core element of this assumption is that learners interpret new information using knowledge that they have already acquired (Wilson, 1996). Learners activate prior knowledge and try to relate new information to the knowledge they already possess (Blumenfeld, 1992). Thus, constructivism can be stated to be a view of learning that considers the learner as a responsible active agent in his/her knowledge acquisition process (Abbott and Ryan, 1999).

It is assumed that learners have to construct their own knowledge and understanding through cooperatively or individually. Each learner has a tool kit of concepts and skills with which he/she must construct knowledge and solve the problems presented by the environment (Davis et al., 1990). In constructivist environments, students are asked to deliberately take action to create meaning from what they are studying. In other words, learners adopt the role of seekers and problem solvers while teachers become facilitators and guides rather than presenters of knowledge, students learn how to use or apply the information in diverse contexts (Dunlop and Grabinger, 1996). Providing learning environments in which students take the responsibility of their own learning does not indicate that they have complete freedom of decision-making based on their learning (Marlowe and Page, 1998). The teacher’s role in a constructivist classroom is not so much to lecture at students, but to act as an expert learner who can guide students into adopting cognitive strategies such as self-testing, articulating understanding, asking probing questions and reflection. Hence, the role of the teacher in constructivist classrooms is to organise information around big ideas that engage students’ interests, to assist students in developing new insights, and to connect them with their previous learning. So, the activities in constructivist learning environment are student-centred and students are encouraged to ask their own questions, carry out their own experiments, make their own analogies, and come to their own conclusions (Brooks and Brooks, 1999). Consequently, becoming a constructivist teacher who helps learners to search rather than follow is rather challenging, yet, not impossible to attain (Honebein, 1996). In this sense, constructivist teacher roles require encouraging student autonomy and initiative, allowing students’ goal setting and choice of instructional strategies and altering content, inquiring students’ understanding of concepts before sharing their own understandings, encouraging students in dialogue both with the teacher and the peers, seeking elaboration of students’ initial responses, allowing wait time after voicing questions both for constructing relationship and metaphors, inquiring students with questions that utilise their critical thinking and encouraging them to ask too and engaging students in experiences that might engender contradictions to their initial hypotheses (Brooks and Brooks, 1999). Thus, as Saban (2004) states, the perception of teachers on the understanding of students in the classroom is closely related with his/her own discipline understanding. So, this stated perception brings with the concept of student control ideologies of teachers in the classroom.

Student control has been conceptualised along a continuum ranging from custodialism at one end to humanism at the other (Willower et al., 1973). The importance of student control in schools is not surprising since schools are people-developing or people-changing institutions (Lunenburg and Ornstein, 2008). The rigidly traditional school serves as a model for the custodial orientation. This kind of school provides a highly controlled setting concerned primarily with the maintenance of order. Students are stereotyped in terms of their appearance, behaviour, and parents’ social status (Hoy, 2001). Schools that adopt custodial control ideology exert high levels of control to maintain their rules. Students are considered as individuals who need to be controlled by sanctions based on restrictions, since they are irresponsible and undisciplined in terms of the way in which they behave, dress, appear, etc. (Willower et al., 1973; Hoy, 2001, 2007; Lunenburg and Ornstein, 2008).
2008). Teachers with custodial control ideology stress the maintenance of order, impersonality, one-way downward communication, distrust of students and a punitive, moralistic attitude towards student control (Lunenburg, 1991; Lunenburg and Cadavid, 1992; Lunenburg and Ornstein, 2008). They tend not to understand their students' behaviours and attitudes. Instead, they maintain a rigid student-teacher status hierarchy. Students must accept the decisions of these teachers without question. Student misbehaviour is viewed as a personal affront and students are perceived as irresponsible and undisciplined persons who must be controlled through punitive sanctions. Impersonality, pessimism and watchful mistrust characterise the atmosphere of the custodial school (Cadavid and Lunenburg, 1991; Lunenburg and Cadavid, 1992). Traditional classroom teacher control theory implies a kind of domination. Teachers who subscribe to the traditional classroom teacher control theory strive to become the ultimate authority and source of knowledge. They also tend to see students on the receiving end of the instructional process (Honey and Moeller, 1990). On the other hand, the humanistic model conceives of the school as an educational community in which students learn through cooperative interaction and experience (Lunenburg and Cadavid, 1992). According to the humanistic control ideology, students' learning and behaviours are considered psychologically and sociologically rather than morally (Johns et al., 1989; Lunenburg and Cadavid, 1992). Indeed, teachers with humanistic control orientation emphasise the psychological and sociological bases of learning and behaviour, an accepting and trustful view of students and a confidence in students' ability to self-disciplining and responsible (Lunenburg, 1991). In humanistic control orientation, teachers believe that students can learn to be responsible and self-regulating individuals. Moreover, the humanistic teacher is optimistic about students and has open and friendly relations with students. A humanistic orientation leads teachers to desire a democratic classroom climate with its attendant-flexibility in status and rules, open channels of two-way communication, and increased self-determination. Teachers and students are willing to act on their own volition and accept responsibility for their actions (Lunenburg and Schmidt, 1989). The climate of humanistic orientation seeks to meet the needs of every student and student individualism is emphasised (Hoy, 2001). A teacher with humanistic control ideology considers students as an educational group where they participate in their learning process through cooperative interaction and experiences (Lunenburg and Schmidt, 1989). In this regard, it can be stated that constructivist learning theory of classroom control translates effectively the educational and socialisation agendas into their student-centred practice (Keyser, 2000). In a more student-centred classroom control theory (humanistic control orientation), as in constructivist pedagogy, a teacher’s authoritarian style of classroom management and instructional practices may yield to less controlling roles such as directing, facilitating, and assisting (Fosnot, 1996). Whereas, some teachers who adopt custodial control ideology resist constructivist pedagogy for some reasons such as commitment to their current instructional approach, concern about student learning, and concern more about classroom control (Brooks and Brooks, 1999).

There are studies both on constructivist learning environments (DeVries and Betty, 1995; Wilson, 1996; Taylor et al., 1997; Brooks and Brooks, 1999; Ziegler, 2000; Erdem, 2001; Çınar et al., 2006; Çetin and Günday, 2007; Gültakin et al., 2007; Erdamar and Demirel, 2008; Argün and Aşkar, 2010) and student control ideologies (Hoy, 2001; Helsel, 1971; Jones and Blakenship, 1972; Willower et al., 1973; Deibert and Hoy, 1974; Multhauf et al., 1978; Jones and Harty, 1980; Lunenburg, 1984; Lunenburg, 1991; Schmidt, 1992; Yilmaz, 2009; Okafor, 2006; Beycioğlu et al., 2007; Rideout and Windle, 2010; Baş, 2011) in the related literature. However, there are no studies in relation with the correlation between teachers' student control ideologies and students' views on constructivist learning environment in the literature. Hence, the determination of the correlation between these two variables is very crucial in order to create a more student-centred classroom atmosphere in school. In this context, the purpose of this study was to determine the correlation between teachers’ student control ideologies and students’ views on the constructivist learning environment. In order to establish a correlation between control ideologies of teachers and constructivist learning views of students, the following research questions were posed in the study:

1. Is there a significant correlation between teachers' student control ideologies and students' views on constructivist learning environment?
2. What is the prediction level of teachers' student control ideologies for students' views on constructivist learning environment?

This study sought to improve the understanding of teachers' student control ideologies and its role on the development of students' views on constructivist learning environment. The findings obtain in the study may provide information for policymakers, educational administrations and curriculum developers as well as insights that may be relevant to similar studies elsewhere.

METHOD

The correlative investigation model was used in the research (McMillan and Schumacher, 2006). This model is one of the most commonly applied models in the related literature (Cohen et al., 2003). The correlative investigation model is used to determine the correlation between different variables in educational and social research (Fraenkel and Wallen, 2000) and aims to identify the
existence or level of coordinated change between two or more variables (McMillan and Schumacher, 2006).

Participants

The participants of the study consist of 213 teachers [116 females (54.46%) and 97 males (45.53%) with an average teaching experience of 12 years] and 346 students [180 females (52.02%) and 166 males (47.97%) with a mean age of 11 years] from thirteen elementary schools during the 2010 to 2011 academic year within the borders of Konya and its districts. The teachers and the students were chosen from the same schools. In order to detect the sampling of the study, elementary schools in cosmos were chosen according to three-layer group sampling method according to socio-economic structure (high-middle-low) of their region, volunteered to participate in the research (McMillan and Schumacher, 2006). The participants were assured for the anonymity and confidentiality for their responses in the study.

Data collection instruments

The student control ideology scale (Willower et al., 1973) and the constructivist learning environments assessing scale (Argün and Aşkar, 2010) were used in the study.

Student control ideology scale

The student control ideology scale was developed by Willower et al. (1973) and adapted and translated into Turkish by Yılmaz (2002). The scale is one dimensional and consists of 20 items. The higher the total score on the Scale, the higher the level of custodial student control ideology of the teacher. The Cronbach’s alpha level of the scale was calculated as .72 (Yılmaz, 2002).

Constructivist learning environments assessing scale

The constructivist learning environments assessing scale was developed by Argün and Aşkar (2010). The scale consists of 28 items and the higher the total score on the scale, the higher the level of the views of students on the constructivist learning environment. The Cronbach’s alpha level of the scale was calculated as .96 and the RMSA (Root Mean Square Error of Approximation) value was found as .076 (Argün and Aşkar, 2010).

Data analysis

The Pearson moment’s correlation coefficient analysis was used in order to determine the correlation between variables and the regression analysis was used to determine the prediction level of teachers’ student control ideologies for students’ views on constructivist learning environment.

RESULTS

In this part of the research, the correlation between teachers’ student control ideologies and students’ views on constructivist learning environment and the prediction level of teachers control ideologies for students’ constructivist learning environment views were presented. For this purpose, the correlation between teachers’ student control ideologies and students’ views on constructivist learning environment is presented in Table 1.

The results obtained in Table 1 indicated that there was a significant negative moderate correlation between teachers’ student control ideologies and students’ views on constructivist learning environment (r = -.281, p < .01). As an increase in the total score on the student control ideology scale represents a more custodial student control ideology, so it may be stated that an increase on the total score of the student control ideology affects students’ views on constructivist learning environment negatively.

In the same way, it may also be suggested that the more the perceptions of teachers about the student control ideology occur, the negative constructivist learning environment views of students is observed. On the other hand, simple regression analysis was used in order to measure the prediction level of teachers’ student control ideologies for students’ views on constructivist learning environment and the result obtained in the study is presented in Table 2.

Table 2 indicated that teachers’ student control ideology was a significant predictor of students’ views on

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<th>Table 1. Correlations matrix of student control ideology for constructivist learning environment.</th>
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<td>**Correlation is significant at the 0.01 level (2-tailed).</td>
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<th>Table 2. Prediction of student control ideology for constructivist learning environment.</th>
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<td>Constructivist learning environment</td>
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<td>Note: $R = .281$, $R^2 = .079$, $F(1,244) = 20.992$, $p = .00$.</td>
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constructivist learning environment and approximately eight per cent of the total variance for students' views on constructivist learning environment was explained by teachers' student control ideologies ($R^2 = .079$, $p < .01$). In the light of the data gathered, it can be stated that teachers' student control ideology appears to be a significant predictor of students' views on constructivist learning environment.

DISCUSSION

According to Şişman and Turan (2004), the Turkish Education System seems to be teacher-centred. So, it can be stated that this teacher-centred structure of the Turkish Education System is effective on the result obtained in the study. In this sense, it is apparent that there was a significant correlation ($r = .281$, $p < .01$) between teachers' student control ideologies and students' views on constructivist learning environment in the study. It was also found out that teachers' student control ideology was a significant predictor ($R^2 = .079$, $p < .01$) of students' views on constructivist learning environment. It was found that approximately eight per cent of the total variance for students' views on constructivist learning environment was explained by teachers' student control ideologies.

Custodial teacher control ideology implies a kind of domination in the classroom. Teachers who subscribe to the custodial student control ideology strive to become the ultimate authority and source of knowledge. They also tend to see students on the receiving end of the instructional process (Honey and Moeller, 1990). Custodial teachers were found to apply more traditional classroom management styles and more traditional methods of instruction in the classroom. The custodial teacher sees himself/herself as the only source of knowledge, power and authority so that they tend to apply more teacher-centred instructional methods and classroom applications rather than student-centred activities and methods of instruction as in constructivist learning environment. However, as contemporary classroom practice reveals the teacher is not the only person who is responsible for learning outcomes, power relations and source of knowledge in the classroom. In fact, every student contributes to learning objectives through his/her individual responses to each aspect of classroom activities (Manke, 1997). In a more student-centred classroom control, such as in humanistic student control ideology, a teacher's authoritarian style of classroom management and applications of instructional methods may yield to less controlling roles such as directing, facilitating, and assisting (Fosnot, 1996). In the study carried by Jones and Blankenship (1972), it was found out that there was a significant correlation between teachers' student control ideologies and their innovative classroom practices. In this study made by Jones and Blankenship (1972), it was seen that teachers who adopt humanistic control orientations are more likely to apply alternative and new student-centred instructional methods in their classroom since they take their students interests and needs into consideration and they are in search of new applications of instruction in the classroom. Students in humanistic classrooms have more positive attitudes towards teachers. The students in these classrooms feel happier and they are also more enthusiastic for learning (Lunenburg and Stouten, 1983). The teacher becomes the catalyst of student learning in the classroom. The teacher invites students to share the roles of power relations and source of knowledge, then allows students to initiate and share decision-making about learning activities during the instructional process (Brooks and Brooks, 1999). According to Kanungo and Aycan (1997), the public administration in Turkey was performed through traditional structures, so it can be stated the Turkish society mostly tend to the traditional view of administration. Thus, this affects schools and teachers so that teachers may tend to adopt custodial student control ideology in their classrooms. On the other hand, Lunenburg and Mankowski (2000) found out a significant correlation between a high degree of school bureaucratisation and custodialism in student control orientation and behaviour, so custodialism in student control orientation was related to a high incidence of rules and regulations, hierarchical authority and centralisation of control.

According to Karadağ et al. (2008), while teachers have positive perceptions about constructivist learning, they are hesitant to apply constructivist learning principles in their classroom and they prefer custodial classroom management style and traditional methods of instruction. In studies carried out by Akamca et al. (2006), it was found out that teachers do not have enough knowledge about constructivism and its practices in the classroom. So, the most critical area of work in constructivist pedagogy at this point is determining ways of relating teacher actions in a constructivist classroom to students' learning (Richardson, 2003). Thus, the views on good instruction have shifted and teachers were encouraged to implement constructivist learning principles in their teaching (Brophy, 1999). Hence, it is recommended that teachers should be provided with the assistance to better apply humanistic classroom orientations. Smaller class sizes would also be helpful since crowded classrooms make teachers more likely to apply custodial orientations and their management and instruction less effective in such classrooms (Erdoğan et al., 2010). In studies carried out by Akpinar et al. (2006), Gömleksiz (2007) and Korkmaz (2008), it was found out that crowded classrooms and the lack of necessary materials are viewed as some of the most important problems of constructivist applications in classrooms in Turkey. Hence, the physical atmosphere of classrooms may prevent teachers from applying humanistic classroom orientations.
Also, teachers prefer adopting custodial student control orientations in their classrooms since it is very easy to teach the students and apply activities in the classroom and finish the curriculum in time. Besides, classrooms should be supported with authentic teaching materials and learning centres should be created for students who have different learning styles in schools. Also, traditional classroom desks should be rearranged in order to sustain face-to-face interaction and collaboration amongst students. Moreover, student learning should be moved to out of school learning environments in order to make students learn in different centres as well as interact with rich learning materials. On the other hand, school organisation and structure should be developed so as to adopt more humanistic student control orientations. Although the new elementary curriculum, which was prepared in 2004 to 2005 academic year, supports critical and creative thinking of students and constructivist learning environment, both the school administrators and teachers seem willingly to make custodialism continue in schools since they want to have close-control over students, apply traditional instructional methods and concern more about academic achieve-ments of students rather than considering students’ social, psychological, emotional and physical well-being in the classroom. In this regard, it is seen very crucial that school administr-ations and educational supervisors should support teachers with their student control orientations and provide guidance.

REFERENCES
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