International Journal on New Trends in Education and Their Implications
Special Issue December 2010 Volume: 1 Issue: 4 Article: 5 ISSN 1309-6249

THE EFFECTS OF PERCEIVED INSTRUMENTALITY AND FUTURE TIME PERSPECTIVE ON STUDENTS' GRADED PERFORMANCE AND ATTITUDES REGARDING ENGLISH CLASS

English Teacher Nursen OZCETIN
Izzet Baysal Technical High School
and Industrial Vocational High School, Bolu, TURKEY

Assist. Prof. Dr. Altay EREN
Abant Izzet Baysal University
Faculty of Education
Department of Educational Sciences
14280 Gölköy, Bolu, TURKEY

ABSTRACT

This study aimed to explore the effects of vocational high school students' future time perspective and perceived instrumentality on their graded performance and attitudes regarding English class. A total of 1061 students from different vocational high schools in Bolu voluntarily participated in the study. The Future Time Perspective Scale and the Perceived Instrumentality Scale were used to assess the students' future time perspective and perceived instrumentality regarding English class. The hierarchical cluster analysis and univariate analysis of variance were used to analyze the data. Overall, results revealed that the students' future time perspective significantly affected their graded performance, but not their attitudes. Results also showed that the students' perceived instrumentality regarding English class significantly affected their graded performance and attitudes.

Keywords: Future Time Perspective, Perceived Instrumentality, English, Student, Graded Performance.

INTRODUCTION

Future Time Perspective (FTP) "refers to the ways in which people conceive of, organize, and feel about their future (Lomranz, Shmotkin, & Katznelson, 1983, p. 407). Perceived Instrumentality (PI), however, is defined as "an individual's understanding of the incentive for a present behavior" (Husman et al., 2004, p. 64). As such, FTP provides a general basis for an individual to consider the future consequences of his/her goal-related present actions; whereas the PI provides a specific basis for an individual to focus on the degree to which a present task is instrumental in attaining his/her future goals (See, for a recent review, Bembenutty, 2010). Given that education is a future-oriented process, it is reasonable to focus on the concepts of FTP and PI in order to understand student achievement and motivation in educational settings more comprehensively. Indeed, a large body of research demonstrated that the FTP and PI play a considerable role in student motivation and achievement (Adelabu, 2007; Zimbardo & Boyd, 1999, 2008). Based on a sample of middle school students, Teahan (1958), for example, demonstrated that high achievers had significantly more extensive FTP than low achievers on most of the projective tests such as story completion tests and thematic apperception tests, indicating that the relationship between student achievement and FTP was significant. Recently, based on a sample of high school students and undergraduate students, Bilde, Vansteenkiste, & Lens (in press) demonstrated that the relationship between FTP and intrinsic motivation was significant.

In addition, studies on dimensionality of the FTP revealed that it is a multidimensional construct (Husman & Shell, 2008). Accordingly, FTP consists of both cognitive (i.e., extension, speed, and connectedness) and affective (i.e., value) aspects. However, different aspects may emerge in different cultures, because these dimensions are sensitive to cultural effects (Phan, 2009). For example, based on a sample of Turkish undergraduate students, Eren (2007) recently demonstrated that not the extension and speed factors, but connectedness (i.e., the ability to consider the link between present activities and future goals) and value (i.e., the degree to which people attribute importance to future goals) factors were confirmed. Thus, the connectedness and value aspects of the FTP were considered in the present study. Relevant studies also showed that PI is significantly and positively linked to students' valuing of schoolwork (e.g., Husman & Lens, 1999), GP regarding psychology class (Malka & Covington, 2005), academic engagement (Horstmanshof & Zimitat, 2007), and intrinsic motivation (e.g., Husman et al., 2004). For instance, Simons, Dewitte, & Lens (2004) showed that when PI is internally regulated, students were more task oriented, more excited about the course, used deeper level learning strategies, and performed better. Research on students' PI demonstrated that the PI can be examined with both a one-factor structure (Miller, De Backer, & Greene, 1999) and a four-factor structure (i.e., proximal utility-external regulation, proximal utility-internal regulation, distal utility-external regulation, and distal utility-internal regulation) (Simons et al., 2004). In the current study, students' PI was considered as a unidimensional construct because this study aimed to examine the students' PI with regard to a specific class (i.e., English). Few studies examined the effects of both FTP and PI on student motivation and achievement in educational settings. For example, Malka and Covington (2005) demonstrated that the FTP-connectedness and PI were subjectively salient aspects of undergraduate students' achievement motivations.

Furthermore, there is a gap in the literature regarding the effects of vocational high school students' FTP and PI on their GP and attitudes regarding English class, indicating that this issue has remained to be challenged. However, vocational education is the major source of qualified human resources that forms the quality of the workforce in every country. In fact, foreign language ability is one of the core elements of the mentioned quality due to the reason that the global characteristic of the present labor markets requires professionals and prospective professionals to acquire internationally valid language ability such as English. Therefore, this study aimed to explore the effects of vocational high school students' FTP and PI on their GP and attitudes regarding English class. In line with this aim, two research questions were formulated as follows:

- What are the profiles of students' FTP and PI regarding English class?
- Do the profiles of vocational high school students' FTP and PI significantly affect their attitudes and GP regarding English class?

METHOD

Participants

Based on the survey method, a total of 1061 vocational high school students (562 male and 499 female) was randomly sampled from the universe of 9813 vocational high school students in Bolu.

The sample consisted of those students who major in 7 diverse Anatolian vocational high schools such as Anatolian Trade Vocational High School, Anatolian Technical High School, and Anatolian Imam and Preacher High School, as well as those students who major in 9 diverse other vocational high schools such as Trade Vocational High School, and Imam and Preacher High School. Of them, 328, 327, 176, and 230 were first, second, third, and fourth-year students respectively (Mean age=16.30, SD=1.13).

Research Instruments

In the present study, the Turkish version of the FTP Scale (TVFTPS - Eren, 2007) was used to assess students' FTP whereas the Attitudes regarding English Class Scale (AECS - Altunay, 2004) was used to assess students' attitudes regarding English class. The Perceived Instrumentality Scale (PIS - Miller et al., 1999) was used to assess students' PI regarding English class. The TVFTPS has two factors as connectedness (sample item: I don't

think much about the future) and value (sample item: Long range goals are more important than short range goals, Reverse scored) each of which comprises 7 items whereas the AECS has one factor with 17 items (sample item: I feel happy in English classes). The PIS, however, has one factor with 5 items (sample item: I do the work assigned in this class because learning the content plays a role in reaching my future goals). The term, "this class", was replaced with English class due to the scope of the present study. For all items in the scales, students rated their responses on a five-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). Results of the Confirmatory Factor Analyses revealed that the factor structures of the TVFTPS (χ^2 (76) = 275.17; GFI=.97; AGFI=.96; CFI=.94; RMSEA=.046), AECS (χ^2 (102) =674.35; GFI=.94; AGFI=.90; CFI=.91; RMSEA=.067), and PIS (χ^2 (4) =14.69; GFI=.99; AGFI=.98; CFI=.99; RMSEA=.047) were confirmed in the present sample.

Procedure and Data Analyses

The data were collected by the researcher during the 2009/2010 academic year. The scales were presented to the participants in a random order, and with instructions concerning the aim of the study. The students' GPs regarding English class were the end of the semester grades in the school reports ranging from 1 (lowest) to 5 (highest). For the first research question, using Ward's method with squared Euclidean distance measure and based on the standardized scores of the FTP and PI, two Person-Centered Hierarchical Cluster Analyses (HCA) were conducted (Rencher, 2002). Before addressing the second research question, a cross-tabulation analysis was conducted in order to check the relationships among the clusters, school type, gender, and grade level variables. By doing so, it was aimed to control their possible effects on the dependents although the effects of the demographic variables were not of interest in the present study. For the second research question, two Univariate Analyses of Variance (UniANOVA) were conducted in order to explore whether the effects of those profiles of FTP and PI on students' GP and attitudes were significant. The AMOS 7 and SPSS 15 were used in all the statistical analyses.

RESULTS AND DISCUSSION

Profiles of Students' Future Time Perspective and Perceived Instrumentality

Results of the HCA revealed two discernible cluster patterns for the FTP variable (t (1059) = 41.25, $p < .001$, Cohen's d = .99) (see Table 1).

Table 1
Cluster centers regarding the factors of future time perspective

		Value		Connectedness	
Cluster	n	M	SD	M	SD
1	745	.51	.61	.08	.10
2	316	-1.20	.65	-.19	.98

Based on the cluster centers, the first cluster was labeled as High Value/Medium Connectedness Cluster (HV/MC) whereas the second cluster was labeled as Low Value/Low Connectedness (LV/LC) cluster. The HV/MC cluster contained 745 students.

To attribute a high value to their future goals and seeing a moderate connection between these goals and their current steps were the main characteristics of the students in this cluster. The LV/LC cluster, however, contained 316 students. In contrast to the students in HV/MC cluster, to attribute a low value to their future goals and seeing a weak connection between their future goals and current steps were the main characteristics of the students in this cluster.

On the other hand, results of the HCA revealed three distinctly different clusters for the PI variable ($F(2,1058)=2077.79$, p <.001, partial $\eta^2=.80$) (see Table: 2). Based on the cluster centers, the first, second, and the third clusters were labeled as medium (MPI), high (HPI), and low (LPI) PI clusters respectively. The main characteristic of those students in the MPI cluster (n=531) was to perceive the English class as moderately instrumental to attain their future goals whereas the main characteristic of those students in the HPI cluster (n=251) was to perceive the English class as highly instrumental to attain their future goals. Finally, those students in the LPI cluster (n=279) perceive English class as weakly instrumental to attain their future goals.

Table 2
Cluster centers of the perceived instrumentality

Cluster	n	M	SD
1	531	.11	.32
2	251	1.20	.22
3	279	-1.30	.74

The overall results of the HCA demonstrated that both the students' FTP and PI may well be represented with distinctly different clusters. Given the fact that both FTP and PI are the well-known individual difference variables (Leonardi, 2007), these results are not surprising although they are the first cluster-analytic results with regard to the topic. Nevertheless, the current results have broadened our understanding regarding the students' FTP and PI in two ways. First, a considerable amount of students (n=745) perceive their future goals as important, while they see only a moderate relationship between their future goals and present steps; whereas the remaining students (n=316) perceive their future goals as not so important, while they see only a weak relationship between their future goals and current steps. This means that the students may not adequately bridge the gap between their future goals and current steps or activities even if they are aware of the value of their future goals. Secondly, a large number of students perceives English class either moderately instrumental (n=531) or not so instrumental (n=279) to attain their future goals whereas only a small amount of students (n=251) perceives English class as highly instrumental to attain their future goals. This indicates that the mentioned gap regarding the students' FTP is somewhat replicated in terms of their PI regarding English class. This result is in line with the notion that the PI is the domain-specific aspect of the FTP (Gjesme, 1983).

The Effects of FTP and PI on Attitudes and GP Regarding English Class

Results of the cross-tabulation analysis revealed that the relationship between the grade level and FTP clusters (Cramer's V =.14, p<.001), as well as the relationship between grade level and PI clusters (Cramer's V=.17, p<.001), were significant. No other significant relationships were observed among the variables at hand. Thus, the affect of grade level, as well as the effect of grade level and cluster interaction, was controlled in the UniANOVA. However, they were not reported due to the scope of the study. The results of the UniANOVA showed that the effect of the FTP cluster on the students' attitudes regarding English class was not significant (F (1, 1053) =1.58, p=.21, partial η^2=.001) whereas the effect of the FTP cluster on students' GP regarding English class was noticeable (F (1, 1053) =4.36, p=.04, partial η^2=.004).

Results of the pair wise comparisons, which were calculated based on the estimated marginal means, showed that those students in HV/MC cluster (M=3.39, SE=.05) had significantly higher GP than that of those students in LV/LC cluster (M = 3.23, SE = .07). The non-significant relationship between the students' FTP and attitudes is not in line with the results of previous studies (e.g., Zimbardo & Boyd, 1999). However, this can be due to the differences between the samples of these studies (i.e., general high school students and undergraduate students) and the current study (i.e., vocational high school students). Conversely, the effect of the students' FTP on their GP regarding English class was significant which were in line with the results of previous studies (e.g., Adelabu, 2007). This contrasting picture, in which the effect of the students' FTP on their attitudes was

non-significant whereas the effect of the FTP on their GP was significant, can be explained based on the fact that the attitudes are subjective or non norm-based judgments whereas the GP regarding English class is a norm-based measure. Accordingly, the GP may be perceived by the students as more important to their personal future than their subjective judgments regarding English class. Results of the UniANOVA also demonstrated that both the effect of PIS cluster on the students' attitudes regarding English class ($F(2, 1049) = 36.03$, $p < .001$, partial $\eta^2 = .064$) and the effect of PIS cluster on the students' GP regarding English class were significant ($F(2, 1049) = 5.22$, $p < .01$, partial $\eta^2 = .010$). For the attitude variable, results of the pair wise comparisons revealed that those students in HPI cluster (M=56.41, SE=.89) have had significantly more positive attitudes regarding English class than that of both those students in MPI (M= 49.57, SE=.54) and LPI clusters (M=46.89, SE=.71). For the GP variable, however, results of the pair wise comparisons showed that those students in HPI cluster (M=3.54, SE=.09) had significantly higher GP than that of those students in LPI cluster (M=3.19, SE=.07) (all *p*s<.05). These results were in line with the previous studies, in which it was found that vocational high school students' PI regarding French and mathematics were effective on their GP and attitudes (Creten, Lens, & Simons, 2001).

CONCLUSIONS AND SUGGESTIONS

The results of the present study lead to three major conclusions: Firstly, a considerable amount of the students perceived only a weak or moderate link between their future goals and present steps. Secondly, most of the students in the present sample perceived English class as weakly instrumental to attain their future goals. Finally, and most importantly, these perceptions made sense in the students' attitudes and GP regarding English class. Therefore, it can be said that

- English teachers should take into consideration their students' FTP and PI in classroom settings;
- the current English lesson programs should also include activities targeted at increasing students' FTP, and particularly PI, regarding English class.

However, it should be noted that previous studies demonstrated that the general or abstract verbal explanations such as 'to learn this subject will be very helpful for you in the future' are ineffective to enable students to establish a link between the educational tasks and their future goals (e.g., Creten et al., 2001).

Thus, teachers should give concrete examples based on real life situations in which the link between the students' current effort in English is instrumental in attaining their future professional goals.

Practicum experiences, which are core aspects of the vocational education programs, should also be organized so that the students find meaningful opportunities to envision their future goals in terms of their current efforts with regard to English class.

Such practicum experiences may also help students to create professional future goals. Likewise, there is evidence that those individuals who have clear personal goals for the future are more likely to focus on the tasks at hand (Zimbardo & Boyd, 2008).

However, this study has some limitations. First, the correlational nature of the present data prohibits causative inferences regarding the relationships between the variables at hand, although the FTP and PI were determined as the antecedents of the students' attitudes and GP regarding English class based on the previous studies.

Thus, longitudinal studies are needed in order to make robust causative inferences regarding the mentioned relationships. Second, the sample consisted of only vocational high school students which may seriously limit the generalizability of the current results.

Future studies in which both general and vocational high school students' FTP and PI are investigated may broaden our current understanding regarding the topic.

IJONTE's Note: This study was based on the first author's Master thesis. In addition, this article presented at International Conference on New Trends in Education and Their Implications, 11-13 November, 2010, Antalya-Turkey, and selected for publishing by ICONTE Science Committe for Special Issue of IJONTE 2010.

BIODATA AND CONTACT ADDRESSES OF AUTHORS

Nursen OZÇETIN is an English teacher at Izzet Baysal Technical and Industrial Vocational High School in Bolu. She has been teaching for nine years. She studied vocational high school students' future time perspective and perceived instrumentality on their graded performance and attitudes regarding English class for her M.A. dissertation.

Nurşen OZCETIN
English Teacher,
Izzet Baysal Technical High School
and Industrial Vocational High School,
Tabaklar Mah. Seymen Sok. No: 3
14100, Bolu, TURKEY
Tel: (374)2151076
Fax: (374)2150003
Email: nursenozcetin@gmail.com

Altay EREN is an assistant professor at Abant Izzet Baysal University. In 2006, he completed his doctoral dissertation, entitled examining the undergraduate students' general and domain specific epistemological beliefs. His research interests relate to motivations for teaching, prospective teachers' professional plans about teaching, individual differences that underlie students' educational outcomes, achievement goals, epistemic curiosity, and time perspective.

Assist. Prof. Dr. Altay EREN
Abant Izzet Baysal University
Faculty of Education
Department of Educational Sciences
14280, Gölköy, Bolu, TURKEY
Tel: (374)2541000/1642
Fax: (374)2534506
Email: eren_a@ibu.edu.tr

REFERENCES

Adelabu, D. H. (2007). Time perspective and school membership as correlates to academic achievement among African American adolescents. *Adolescence,* 42(167), 525–538.

Altunay, U. (2004). Üniversite İngilizce hazırlık öğrencilerinin İngilizceye yönelik tutumlarıyla bazı bireysel değişkenler arasındaki ilişkiler [The relationship between English language preparatory year students' attitudes regarding English and some individual variables]. 13. Ulusal Eğitim Bilimleri Kurultayı, Malatya.

Bembenutty, H. (2010). Present and future goals: Perceived instrumentality of schoolwork. *Psychology Journal*, 7(1), 2-14.

Bilde, J. D., Vansteenkiste, M., & Lens, W. (in press). Understanding the association between future time perspective and self-regulated learning through the lens of self-determination theory, *Learning and Instruction,* doi:10.1016/j.learninstruct.2010.03.002

Creten, H., Lens, W., & Simons, J. (2001). The role of perceived instrumentality in student motivation. In A. Efklides, J. Kuhl, & R. M. Sorrentino (Eds.), *Trends and prospects in motivation research* (pp. 37–45), New York, NY: Kluwer.

Eren, A. (2007). Gelecek zaman perspektifi ölçeği [Future time perspective scale]. *Eğitim Bilimleri ve Uygulama,* 6(12), 79–96.

Gjesme, T. (1983). On the concept of future time orientation: Considerations of some functions and measurements' implications. *International Journal of Psychology*, 18, 443–461.

Horstmanshof, L., & Zimitat, C. (2007). Future time orientation predicts academic engagement among first-year university students. *British Journal of Educational Psychology,* 77, 703–718.

Husman, J., & Lens, W. (1999). The role of the future in student motivation. *Educational Psychologist,* 34(2), 113–125.
Husman, J., Derryberry, W. P., Crowson, H. M., & Lomax, R. (2004). Instrumentality, task value, and intrinsic motivation: Making sense of their independent interdependence. *Contemporary Educational Psychology*, 29, 63-76.

Husman, J., & Shell, D. F. (2008). Beliefs and perceptions about the future: A measurement of future time perspective. *Learning and Individual Differences,* 18(2), 166–175.

Leonardi, A. (2007). Future time perspective, possible selves, and academic achievement. *New Directions for Adult and Continuing Education,* 114, 17–26.

Lomranz, J., Shmotkin, D., & Katznelson, D. B. (1983). Coherence as a measure of future time perspective in children and its relationship to delay of gratification and social class, *International Journal of Psychology,* 18, 407-413.

Malka, A., & Covington, M. V. (2005). Perceiving school performance as instrumental to future attainment: Effects on graded performance. *Contemporary Educational Psychology,* 30(1), 60–80.

Miller, R. B., DeBacker, T. K., & Greene, B. A. (1999). Perceived instrumentality and academics: The link to task valuing. *Journal of Instructional Psychology*, 26, 250–260.

Phan, H. P. (2009). Future time perspective in sociocultural contexts: A discussion paper. *Electronic Journal of Research in Educational Psychology,* 7(2), 761-778.

Rencher, A. C. (2002). *Methods of multivariate analysis*. New York, NY: Wiley-Interscience.

Simons, J., Dewite, S., & Lens, W. (2004). The role of different types of instrumentality in motivation, study strategies, and performance: Know why you learn, so you'll know what you learn. *British Journal of Educational Psychology*, 74, 343–360.

Teahan, J. E. (1958). Future time perspective, optimism, and academic achievement. *Journal of Abnormal Social Psychology,* 57(3), 379–380.

Zimbardo, P. G., & Boyd, J. N. (1999). Putting time in perspective: A valid, reliable individual-differences metric. *Journal of Personality and Social Psychology*, 77(6), 1271–1288.

Zimbardo, P. G., & Boyd, J. N. (2008). *The time paradox: the new psychology of time.* London: Rider.