Examination of intrinsic motivation, and job satisfaction of physical education and other branch teachers

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The goal of this study is to determine the level of job satisfaction, and intrinsic motivation of physical education teachers, and other branch teachers. It also aims to assess whether the teachers' participation in an event during their free time varies based on gender, age, marital status, having children, year of study, and type of school attended. After obtaining research permits, teachers were informed about the research in the schools located in Kocaeli Central District. The Minnesota job satisfaction scale and intrinsic motivation scale were applied to 362 teachers who wished to participate voluntarily. Since the data showed normal distribution when analyzed in the SPSS 21.00 packet program, T test was used for independent groups for binary cluster comparisons, and variance analysis for more than two groups (one-way ANOVA). The direction of the inter-scale relationship was tested by Pearson correlation analysis. Margin of error is 0.05. As a result, when examined according to the branch, significant differences in intrinsic motivation, and job satisfaction scores were determined in favor of physical education teachers. In terms of the type of school, intrinsic motivation scores were found to be significant in favor of teachers working in secondary school.

Key words: Free time activity, job satisfaction, intrinsic motivation, branch teacher, physical education teacher.

INTRODUCTION

We know that for the systematic and healthy execution of all services in daily life, employees must love their work, and be productive in their work. It has been reported in the literature that the increase or decrease in performance, which indicates the work productivity of employees, is due to motivation, and job satisfaction. Job satisfaction is defined as a whole of emotions, thoughts, and beliefs that people have towards their work. It has also been seen as an important concept because it has the power to influence employees (Doğan and Aslan, 2018; George and Jones, 2012; Luthans et al., 2008; Oshagbemi, 2003). There are three dimensions used to judge whether a work is satisfactory or not (Kondalkar, 2007). First of these dimensions is emotional reactions to

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work. Secondly, it explains whether the expectations are met or not. The difference between the expectations and results of the employees is very high, they express negative feelings towards their work, and if this situation continues, satisfaction is not achieved. In the third dimension, it has been suggested that there are more dependent states between work and satisfaction (Kondalkar, 2007; Luthans et al., 2008; Oshagbemi, 2003). Of all the theories that explain job satisfaction, Maslow's hierarchy of needs, which is included in the scope theories and also explains motivation, holds an important place. According to this rule; considering that it is important to identify, and address the needs of individuals, it is seen that the factors that drive an individual to behave in certain ways are addressed (Akioka and Gilmore, 2013; Koçel, 2003; Luthans et al., 2008; Steers et al., 2004). The theories on motivation are similar to the theories that explain job satisfaction. Maslow's hierarchy of needs theory and Vroom's waiting theory are some of these. In the theory of waiting, it is suggested that Valance, which shows the degree of desirability of the result that an individual will achieve by making a certain effort, will lead employees to strive harder when it is high (Koçel, 2003). From these explanations, it can be said that job satisfaction achieved by meeting expectations, and the motivation to pursue the goal created to realize expectations basically serve the expectations of an individual. Intrinsic motivation enables action without the influence of an external stimulus (Murphy and Alexander, 2000). Motivation is a state of incentive act. To take action to accomplish a job or goal, there is a need for some internal or external factors. Studies have shown that intrinsic motivation is when a person acts out of his own free will without any external stimulus; it can be activated by an external motivation. In other words, motivation is needed if there is a lack of pleasure from work done, and loss of control in work done (Akbaba, 2006; Vlachopoulos et al., 2000). Intrinsic motivation, which is one of the types of motivation, and is directed to doing a job spontaneously, is important to do things well, and for ownership; it enables one to take action without the help of an external stimulus. Studies have reported that job satisfaction with intrinsic motivation is in two-way relationships. As intrinsic motivation will positively affect people's performance, it is stated that more satisfaction will be achieved from work done, and job satisfaction will increase (Güney, 2013; Munjal and Goyal, 2017; Vallerand and Ratelle, 2004). According to the cognitive evaluation theory, internal motivation occurs when individuals have the competence to do their job, and feel good while doing it (Mandigo and Holt, 2000)

Job satisfaction and motivation are very important in terms of the healthy execution of services for a job. Job is defined as a service requested from someone or a task given (TDK, 2020). For a society to realize good education and training, develop a healthy personality, choose the right profession, and achieve professional goals teachers are expected to become role models by guiding future professionals. It has been suggested that in the school environment, intrinsic motivation, and job satisfaction are important for teachers to increase their commitment to the school, to strengthen their motivation, and to do their job well (Ertürk, 2016). As teachers are considered as good role models, educators, and instructors, it is important to motivate them. To raise healthy individuals, shape the personalities of children and young people and even for them to get jobs, teachers have important roles to play. It is important for them to be motivated internally, and to be satisfied with their work. In teaching profession, teachers have the daily tasks of solving different problems such as educational, emotional, and social ones. These are done for the developmental characteristics of children and young people. As intrinsic motivation is the act of one's own free will without any external stimulus according to self-determination theory and based on the fact that teacher motivation is the basis of students' motivation (Akbaba, 2006; Slémp et al., 2020; Vlachopoulos et al., 2000), it was deemed important to investigate the internal motivation of teachers, as they act without external guidance and encouragement in different situations. The intrinsic motivation including personal motives has three forms: the first one; an intrinsic motivation that is demonstrated to achieve something, which includes gaining mastery, and having pleasure; the second one is intrinsic motivation for living, consisting of stimuli that include participation in an activity, and having pleasure in the activity, and the third is the intrinsic motivation to know something that includes learning, curiosity, explanation, and taking action towards understanding (Kazak, 2004). Talking about the types of internal motivation, for teachers to build their students, first of all, one has to know what conditions their inner motivation to know, succeed, and live. Also, it was wondered whether the intrinsic motivation and motivation of teachers teaching physical education, and sports lessons, which are considered important in gaining health, socialization, and personality development, are different from those of teachers in other fields. There are a limited number of publications that investigate teachers' job satisfaction, and intrinsic motivation. There is no study that has compared physical education teachers and other branch teachers in terms of job satisfaction, and intrinsic motivation. This work aims to study the intrinsic motivation, and job satisfaction levels of teachers handling physical education, and sports lessons which are considered important in socialization, and offer the opportunity to do sports in groups and other branches.

**Purpose of the study**

The aim of this study is to determine the level of job
satisfaction, and intrinsic motivation of physical education teachers, and other branch teachers. It also aims to assess whether participation in an event during their free time varies according to gender, age, marital status, having children, year of study, type of school attended.

**Research questions**

Based on the purpose of the study, answers to the following questions were sought.

(1) Do physical education teachers and other branch teachers differ in terms of job satisfaction, and intrinsic motivation levels?

(2) Do internal motivation and job satisfaction differ according to the levels of kindergarten, primary, and secondary school where teachers work?

(3) Do teachers differ in terms of age, gender, marital status, number of children, and year of study, whether or not they have an activity in which they participate in free time?

**MATERIALS AND METHODS**

**Subjects**

This study is a descriptive survey study. After obtaining permits from Kocaeli Provincial Directorate of National Education in 2016, the schools located in the Central District were contacted for the main purpose of the research. 20 schools were contacted using the cluster sampling method from a population of 1700 teachers working in 60 schools in Izmit district. Schools were visited during the days, and hours determined by the school authorities, and teachers were informed about the research. 362 teachers who volunteered to participate in the study were given the Minnesota work satisfaction scale and intrinsic motivation scale.

**Determination of branches**

For categorizing the branches of teachers, 5 branches are identified as the university entrance exam in Turkey and high-level training courses are categorized as the industry. Accordingly, category is discussed with digital branch: mathematics, physics, chemistry, biology; in the social branch: Turkish, history, social studies, foreign language. Teachers who graduated from the classroom teaching department while studying at the university are also in the classroom teacher category, teachers who study pre-school teaching at the university and teach in kindergartens are also considered as a branch of pre-school education. The subject specified in the purpose of the study and the special talent exam at the entrance to the university were evaluated under 5 separate categories as physical education and sports teacher branch.

**Data collection tools**

**Information questionnaire**

An 8-question questionnaire was prepared and applied by the researchers in the light of literary information, questioning information about socio-demographics, professional experience, and branches that may affect job satisfaction, and intrinsic motivation.

**The Minnesota job satisfaction scale**

The Minnesota job satisfaction scale was developed by Weiss et al. (1967) and translated into Turkish by Baycan (1985). Its validity and reliability were made. Cronbach Alpha was found to be 0.77. The Minnesota business satisfaction scale is composed of 20 items with characteristics that determine the level of intrinsic, extrinsic, and general satisfaction. The scores were rated using a Likert scale as follows: I am not satisfied at all 1 point, I am not satisfied 2 points, I am undecided 3 points, I am satisfied 4 points, and I am very satisfied 5 points. There are no reverse-rated items on the scale. For this research, the overall satisfaction score of the short form was calculated. Overall satisfaction score is obtained by dividing the sum of 20 items by 20 (Yelboğa, 2007). Reliability Cronbach Alpha value was 0.75 for this study.

**The intrinsic motivation scale**

The intrinsic motivation scale was developed by Dündar et al. (2007) based on the scales used by Mottaz (1985), Brislin et al. (2005), and Mahaney and Lederer (2006). It consists of 24 items in total. The intrinsic motivation used for this research includes the first 9 items of the scale. Scale, "absolutely disagree", "Disagree", "No Idea", "agree", and "absolutely agree" is a type of scale in the form of 5 Likert. Scoring average 1.00 to 1.80 is very low, 1.81 to 2.60 is low, 2.61 to 3.40 is medium, 3.41 to 4.20 is high, 4.21 to 5.00 is considered to be very high motivation level (Ağca and Ertan, 2008). The validity and reliability of the scale used in the study were studied and Cronbach Alpha value was calculated as 0.84 (Dündar et al., 2007). The Cronbach Alpha value of the scale for this research was 0.82.

**Statistical analysis**

Since the data showed normal distribution when analyzed in the SPSS 21.00 packet program, t test was used for independent groups for binary cluster comparisons and variance analysis for more than two groups (one-way ANOVA). The direction of the inter-scale relationship was tested by Pearson correlation analysis. Margin of error is 0.05.

**RESULTS**

The percentage distributions of the socio-demographic characteristics of physical education and sports teachers, and teachers working in other branches are presented in the same tables together with the analyses of the average scores they received from the scales. In Table 1, 67.7% were females and 32.3% were male teachers. Overall satisfaction (p=0.070) and intrinsic motivation levels (p=0.289) were not significant in terms of gender. 77.3% of teachers are married, while 22.7% are single. In terms of marital status, general satisfaction (p=0.151) and intrinsic motivations (p = 0.775) were considered
Table 1. Job satisfaction, and intrinsic motivation levels (t test) with percentage distributions of teachers showing gender marital status, and effectiveness in their free time.

| Variable            | N (%) | General satisfaction | Intrinsic Motivation |
|---------------------|-------|----------------------|----------------------|
|                     |       | Mean±SD F P          | Mean±SD F P          |
| Gender              |       |                      |                      |
| Woman               | 245 (67.7) | 3.33±.54 1787 0.078 | 4.15±.63 1.47 0.289  |
| Man                 | 117 (32.3) | 3.45±.56            | 4.10±.78 1.47 0.289  |
| Marital status      |       |                      |                      |
| Married             | 280 (77.3) | 3.98±.55 1.443 0.151 | 4.11±.68 0.287 0.775  |
| Single              | 82 (22.7)  | 3.30±.54            | 4.14±.69 0.287 0.775  |
| Free time event     |       |                      |                      |
| Yes                 | 94 (26.0)  | 3.37±.62 -0.021 0.983 | 3.99±.81 -1.830 0.069  |
| No                  | 268 (74.0) | 3.37±.52            | 4.16±.63 0.287 0.775  |

Table 2. Variance analysis of frequency, intrinsic motivation, and job satisfaction according to branch, school type, and year of study.

| Variable            | N (%) | General satisfaction | Intrinsic Motivation |
|---------------------|-------|----------------------|----------------------|
|                     |       | Mean±SD F P          | Mean±SD F P          |
| Branch              |       |                      |                      |
| Preschool           | 39 (10.8)  | 3.34±0.54 3.625 0.007 | 4.02±0.83 2.728 0.029  |
| Classroom teacher   | 120 (33.1) | 3.29±0.51            | 4.01±0.81 2.728 0.029  |
| Social              | 77 (21.3)  | 3.34±0.54            | 4.15±0.56 2.728 0.029  |
| Numeric             | 53 (14.6)  | 3.35±0.55            | 4.11±0.54 2.728 0.029  |
| Physical Education  | 73 (20.2)  | 3.59±0.58            | 4.32±0.52 2.728 0.029  |
| Tukey test          |       |                      |                      |
| Kindergarten        | 20 (5.5)   | 3.31±0.57            | 3.90±0.97 2.728 0.029  |
| Primary             | 155 (42.8) | 3.31±0.50            | 4.03±0.78 4.561 0.001  |
| Secondary           | 187 (51.7) | 3.44±0.58            | 4.22±0.55 4.561 0.001  |
| Tukey               |       |                      |                      |
| 5 years and under   | 5 (1.4)    | 2.92±0.74            | 4.22±0.35 2.728 0.029  |
| 5.5-10 years        | 51 (14.1)  | 3.39±0.45            | 4.10±0.56 2.728 0.029  |
| 10.5-15 years       | 78 (21.5)  | 3.47±0.49            | 4.14±0.75 2.728 0.029  |
| 15.5-20 years       | 94 (26.0)  | 3.29±0.59            | 4.02±0.70 9.50 0.460  |
| 20.5-25 years       | 51 (14.1)  | 3.29±0.57            | 4.10±0.76 9.50 0.460  |
| 25.5-30 years       | 38 (10.5)  | 3.41±0.57            | 4.13±0.61 9.50 0.460  |
| 30.5 years and over | 45 (12.4)  | 3.48±0.55            | 4.31±0.64 9.50 0.460  |

meaningless. When their participation in any event during their free time is questioned, 74% do not participate in any event during their free time; while 26.0% do not participate. However, the difference is meaningless in terms of general satisfaction (p=0.983) and intrinsic motivation (p=0.069) (Table 1).

In Table 2, 10.8% are pre-school teachers, 33.1% are classroom teachers, 21.3% are social majors, 14.6% are digital majors, and 20.2% are physical education and sports teachers. When the results are compared in terms of branches, the overall satisfaction scores are significantly higher in physical education and sports teachers and lower in classroom teaching (P = 0.007, p<0.05). In terms of intrinsic motivation, it was also observed that physical education teachers had the highest scores in a significant degree (P=0.029, p<0.05).

When we look at the source of the difference between the branches, it is seen that there is a difference between the scores of physical education teachers and classroom teachers. In terms of type of school, 51.7% of secondary school, 42.8% of primary school, and 5.5% of kindergarden teachers scores were compared: only the difference between primary and secondary school teachers in terms of intrinsic motivation was significant (p=0.001, p<0.005). According to the study year, no significant difference was seen in both intrinsic motivation
Table 3. Analysis of internal motivation and job satisfaction variance, and percentage distributions according to teachers’ branches, type of school they work in and year of study.

| Variable      | N (%) | General satisfaction | Intrinsic Motivation |
|---------------|-------|----------------------|----------------------|
|               |       | Mean±SD              | F        | P        | Mean±SD              | F        | P        |
| Age           |       |                      |          |          |                      |          |          |
| 30 and under  | 65 (18.0) | 3.28±0.51            |          |          | 4.20±0.43            |          |          |
| 31-35 age     | 90 (24.9) | 3.36±0.65            |          |          | 4.11±0.69            |          |          |
| 36-40 age     | 78 (21.5) | 3.41±0.53            | 0.779    | 0.565    | 4.02±0.86            | 1.247    | 0.286    |
| 41-45 age     | 59 (16.3) | 3.38±0.54            |          |          | 4.09±0.66            |          |          |
| 46-50 age     | 34 (9.4)  | 3.38±0.49            |          |          | 4.03±0.72            |          |          |
| 51, and over  | 36 (9.9)  | 3.49±0.42            |          |          | 4.32±0.60            |          |          |
| Child status  |       |                      |          |          |                      |          |          |
| No Children   | 121 (33.4) | 3.35±0.53            |          |          | 4.17±0.68            |          |          |
| 1 child       | 124 (34.3) | 3.35±0.52            |          |          | 4.02±0.75            |          |          |
| 2 children    | 103 (28.5) | 3.41±0.59            | 0.700    | 0.552    | 4.15±0.63            | 1.943    | 0.122    |
| 3 and more    | 14 (3.8)   | 3.54±0.65            |          |          | 4.41±0.33            |          |          |

Table 4. Pearson correlation analysis between intrinsic motivation, and job satisfaction.

| Correlation | General satisfaction | Intrinsic motivation |
|-------------|----------------------|----------------------|
| General      | Pearson correlation  | -                    | 0.261**  |
| satisfaction | Sig. (2-tailed)      | -                    | 0.000    |
| n            | 362                  | 362                  |
| Intrinsic    | Pearson correlation  | 0.261**              | 1        |
| motivation   | Sig. (2-tailed)      | 0.000                | -        |
| n            | 362                  | 362                  |

**Correlation is significant at the 0.01 level (2-tailed).**

(p=0.074) and job satisfaction (p=.460) (Table 2).

In Table 3, the age distribution of teachers was 18% (30 years), and under 24.9% (31-35 years), 21.5% (36-40 years), 16.3% (41-45 years), 9.4% (46-50 years), and 9.9% (51 years and above). There was no significant difference in job satisfaction (p=0.565) and intrinsic motivation (p=0.286) in terms of age. 33.4% of the teachers had no children, 34.3% had 1 child, 28.5% had 2 children, and 3% had three children and above. No significant differences were determined in terms of overall satisfaction (p=0.552), and intrinsic motivation (p=0.122) according to childbearing (Table 3).

In Table 4, Pearson correlation analysis used to determine the relationship between intrinsic motivation and job satisfaction scales showed a positive forward-forward relationship (Table 4).

DISCUSSION

As seen in Table 1, there was no significant difference in gender, intrinsic motivation, and job satisfaction scores. There are studies that do not find significant difference in intrinsic motivation and job satisfaction scores in terms of gender. This is similar to our research findings (Argon and Ertürk, 2013; Brislin et al., 2005; Dizdar, 2009; Dündar et al., 2007; Ertürk and Keçecioğlu, 2012; Şahin, 2003; Yelboğa, 2007). In some studies, it has been reported that gender affects job satisfaction, job satisfaction is not related to gender, and that low scores were obtained due to women’s position in work and their working hours (Çarıkçı, 2004; Sünter et al., 2006). There are also studies that show intrinsic motivation is higher in females than males. In these studies, female teachers get employed more than male teachers. It is stated that they have higher intrinsic motivation than male teachers because they believe that their job is respectable and important. In addition, it has been suggested that women attach more importance to the content, meaning, importance, and quality of the work they do than men (Ertürk, 2016; Yıldız, 2010). In terms of marital status, there was no significant difference in overall job satisfaction and intrinsic motivation. Similar results have been obtained in the literature. There are studies that do not find a significant difference in terms of marital status for job satisfaction and intrinsic motivation (Dündar et al., 2007; Ertürk and Keçecioğlu, 2012). It has been reported in the literature that there is no significant difference in
job satisfaction of teachers in terms of many socio-demographic variables and that there is only a difference in job satisfaction due to educational policies such as wages, social rights, and retirement (Omondi, 2012).

It has been found that having a hobby does not make a significant difference in intrinsic motivation or job satisfaction. A large proportion of teachers (74%) do not participate in free time activity. However, it is important to study the condition of teachers who are role models for students who do not participate in recreational activities, which are important in coping with bad habits and improving quality of life. In line with the main problem of the research, job satisfaction and internal motivation analyses are shown in Table 2 in terms of the branches in which teachers work.

According to these results, job satisfaction and intrinsic motivation levels were significantly higher in physical education teachers than in other branches. When the source of the difference is examined with the Tukey test, it is determined that the significance is due to the difference between the scores taken by physical education teachers in general job satisfaction and the scores taken by classroom teachers and teachers in social branches. On the other hand, it was determined that the satisfaction levels of classroom teachers were higher than those of other branch teachers (Ertürk and Keçecioğlu, 2012). It has been reported in the literature that intrinsic motivation, also called self-motivation, is important in sport (Ryan and Deci, 2000). The job satisfaction and intrinsic motivation scores of physical education teachers are higher than those of other branch teachers because they secrete serotonin during exercise and are constantly active, which make them to improve their negative mood (Penedo and Dahn, 2005) and have positive emotions. There are five job characteristics that are applicable to any job according to Hackman, Lawler, and Oldman, skill diversity, job identity, importance of the job, independence and feedback, and intrinsic motivation (Argon and Ertürk, 2013). Physical education teachers have higher intrinsic motivation scores than the other branch teachers due to their ability to take a talent exam at the university entrance stage and to choose the appropriate profession based on their interests and abilities.

There were no significant differences in overall job satisfaction according to the type of school where teachers worked. In terms of intrinsic motivation, the scores of secondary school teachers were significantly higher than those of primary school teachers. There are studies in the literature that show that job satisfaction is significantly higher in primary school teachers (Ertürk and Keçecioğlu, 2012). There are studies that show there are differences among secondary school teachers according to school type (Crossman and Harris, 2006) in contrast to others that do find differences according to school types (Argon and Ertürk, 2013). Although different results have been seen in the literature, this study found that teachers working in secondary school had more intrinsic motivation score. According to the study year, there was no significant difference in overall job satisfaction and internal motivation. Similar results appear in the literature (Argon and Ertürk, 2013; Dündar et al., 2007; Ertürk and Keçecioğlu, 2012). Contrary to these findings, there are also studies that report significantly higher scores according to the study year, especially in those with 16 years or more (Yelboğa, 2007). Teachers with 16 working years’ experience or more have higher intrinsic motivation in parallel with their sense of responsibility, and caring about their job (Ertürk, 2016).

In Table 3, there was no significant difference in overall job satisfaction, and intrinsic motivation according to age. While some studies in the literature support these findings (Argon and Ertürk, 2013; Dizdar, 2009; Dündar et al., 2007; Ertürk and Keçecioğlu, 2012), some studies suggest that the study year affects job satisfaction (Sünter et al., 2006). It has been reported that job satisfaction is higher among those aged 41 and above (Yelboğa, 2007). There are also studies that indicate that people have increased responsibility and experience as their age progresses, and teachers aged 41 and above have higher intrinsic desire and motivation to succeed than those between 20 and 30 years (Ağca and Ertan, 2008; Ertürk, 2016).

In Table 3, job satisfaction and intrinsic motivation were not significant in relation to childbearing. Similar results appear in the literature (Ertürk and Keçecioğlu, 2012). There was an advanced positive relationship between intrinsic motivation and job satisfaction. This is an expected outcome. As a matter of fact, studies explaining intrinsic motivation and job satisfaction show that there is a relationship between the two. It is motivation that initiates the action to meet the need. It has been reported that personal interest, desire, and job satisfaction drive individuals with intrinsic motivation to work (Baltaş, 2002; Brislin et al., 2005).

The results of the study showed a positive relationship between general satisfaction and intrinsic motivation. The job satisfaction and internal motivations of physical education teachers in this study were found to be significantly higher than other branch teachers. This might be due to the fact that physical education teachers move constantly due to the course they teach. Planning more detailed studies was deemed appropriate to come to firm conclusions.

**CONFLICT OF INTERESTS**

The authors have not declared any conflict of interests.

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