Data Article

Basic psychological needs, academic self-efficacy, self-leadership, career adaptability, and life-satisfaction: Data-set from Turkish university students

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Abstract

This data article provides data set from variables related to career adaptability, academic self-efficacy, self-leadership, basic psychological needs, and life satisfaction among college students in Turkey. The data were collected with an online survey from May to July 2021, from a sample of 404 college students of several universities in Turkey. Among the participants, there were 272 (67.3%) females and 132 (32.7%) males, with an average age of 22.10 (SD=3.13). Among the participants, 86 (21.3%) were freshmen, 49 (12.1%) were sophomores, 149 (36.9%) were juniors, and 120 (29.7%) were seniors from different faculties. They completed General Need Satisfaction Scale, Academic Self-Efficacy Scale, The Abbreviated Self-Leadership Questionnaire, Career Adapt-Abilities Scale–Short Form, and Satisfaction with Life Scale. The data was used for quantitative analysis through structural equation modeling to test the hypothetical model with latent variables. The researchers may be able to use the data to explore the relationships between career adaptability, basic psychological needs, academic self-efficacy, self-leadership, and life satisfaction of college students.
Specifications Table

| Subject | Higher Education |
|---------|------------------|
| Specific subject area | Education Psychology, Education Management, |
| Table | |
| Figure | |
| Data Excel | |
| How the data were acquired | Data was collected online survey by way of Google Forms (a web-based survey platform). Informed consent was obtained. The questionnaires are provided as in the repository. All valid samples were processed with SPSS 26.0 and LISREL 8.7 software to conduct Cronbach’s Alpha, SEM analysis. |
| Data format | Raw |
| Analyzed | |
| Description of data collection | Data collection started on May 2021 and was closed on July 2021. All the participants were informed of the study purpose and provided consent to participate. The survey link was shared several lecturers working at different states of Turkey and they shared the link of survey with their students. Participants were also encouraged to share the link to reach more college students through the snowball sampling method. |
| Data source location | • Mersin, Eskişehir, Çankırı, İstanbul, Adana, Antalya |
| • Turkey | |
| Data accessibility | Repository name: Mendeley Data |
| Data identification number: 10.17632/b5yc9sw7y9.5 | |
| Direct URL to data: https://data.mendeley.com/datasets/b5yc9sw7y9/5 | |

Value of the Data

- The data set provides information about the mediating role of self-leadership in the relationships between basic psychological needs and career adaptability and academic self-efficacy and career adaptability among college students.
- The data set provide researchers a better understanding between self-leadership, basic psychological needs, academic self-efficacy, career adaptability, and life satisfaction of college students.
- The data can be used by the researchers who want to conduct further cross-cultural studies on the career adaptability of college students.
- The Structural Equation Model (SEM) and other analyses can be applied by this data.
- Analyses derived from the data could assist universities in preparing career counseling services to create career awareness of college students.
- Exploring career adaptation perception of college students may enable an evaluation of the higher education system’s facilities such as student social support and career counselling services.

1. Data Description

The data set presents results from an online survey including a demographic form and five questionnaires (i) General Need Satisfaction Scale-GNSS [1], (ii) Academic Self-Efficacy
Table 1
Demographic profile of participants (N = 404).

| Demographic                          | Frequency | Proportion (%) |
|--------------------------------------|-----------|----------------|
| Gender                               |           |                |
| Female                               | 272       | 67,30          |
| Male                                 | 132       | 32,70          |
| Age                                  |           |                |
| 18                                   | 15        | 3,71           |
| 19                                   | 26        | 6,44           |
| 20                                   | 47        | 11,83          |
| 21                                   | 88        | 21,78          |
| 22                                   | 102       | 25,25          |
| 23                                   | 80        | 19,80          |
| 24                                   | 18        | 4,46           |
| 25                                   | 8         | 1,98           |
| >25                                  | 20        | 4,95           |
| Grade level                          |           |                |
| First-year                           | 86        | 21,3           |
| Second-year                          | 49        | 12,1           |
| Third-year                           | 149       | 36,9           |
| Fourth-year                          | 120       | 29,7           |
| University Type                      |           |                |
| State                                | 34        | 70,83          |
| Private                              | 14        | 29,17          |
| Students numbers according to university type |     |                |
| State                                | 377       | 93,3           |
| Private                              | 27        | 6,7            |
| Majors                               |           |                |
| Education                            | 177       | 43,8           |
| Literature                           | 121       | 30             |
| Engineering                          | 39        | 9,7            |
| Economics, Business and Management   | 17        | 4,2            |
| Architecture                         | 10        | 2,5            |
| Other majors                          | 40        | 9,90           |

Scale- ASES [2], (iii) The Abbreviated Self-Leadership Questionnaire-TASLQ [3], (iv) Career Adapt-Abilities Scale-Short Form-CASSF [4], and (v) Satisfaction with Life Scale-SWLS [5]. Demographic information of the population includes questions about age, gender, grade level, university type (public, private) and majors of the population. The demographic profile of participants in frequencies and proportions was presented in Table 1. GNSS measures fulfillment of basic psychological needs in three domains as autonomy, competence, relatedness with 21 items. ASES evaluates the self-efficacy level of college students in the academic domain with one dimension and seven items. TASLQ includes three factors as behavior awareness and volition, task motivation, constructive cognition in order to measure the general self-leadership construct with nine items. CASSF measures career adaptation of undergraduate students with four factors named concern, control, curiosity, and confidence with 12 items. SWLS is unidimensional with five items. The data was obtained the Turkish forms of all the scales. The questionnaires are provided as in the repository. The raw data set is presented at https://data.mendeley.com/datasets/b5yc9sw7y9/5

The descriptive statistics (means and standard deviations) of all variables were displayed in Table 2 and correlations among variables were presented in Table 3.

2. Experimental Design, Materials and Methods

The data were collected with an online survey from May to July 2021, from a sample of 404 college students of several universities in Turkey. The online survey distributed lecturers working several universities in Turkey and asked to share the survey link with their students via WhatsApp groups. It was also asked to these participants to share the URL with their friends from different universities in Turkey. The survey was closed in the last week of July when no responses were collected for one week. Informed consent which include statements about the use of the information for academic purposes, and participation was voluntary was obtained.
| Variables                  | Items | Range | Min | Max | Mean | Statistics | Std. Error | Std. Deviation | Variance |
|---------------------------|-------|-------|-----|-----|------|------------|------------|----------------|----------|
| **Academic Self-efficacy** | ACSE1 | 3     | 1  | 4   | 3.15 | .032       | .643       | .413           |          |
|                           | ACSE2 | 3     | 1  | 4   | 3.29 | .031       | .630       | .397           |          |
|                           | ACSE3 | 3     | 1  | 4   | 3.24 | .032       | .639       | .409           |          |
|                           | ACSE4 | 3     | 1  | 4   | 2.78 | .038       | .762       | .581           |          |
|                           | ACSE5 | 3     | 1  | 4   | 2.30 | .041       | .832       | .692           |          |
|                           | ACSE6 | 3     | 1  | 4   | 2.75 | .038       | .768       | .590           |          |
|                           | ACSE7 | 3     | 1  | 4   | 2.81 | .045       | .901       | .811           |          |
| **Basic Psychological Needs** | BPN1  | 6     | 1  | 7   | 5.15 | .080       | 1.605      | 2.577          |          |
|                           | BPN2  | 6     | 1  | 7   | 5.19 | .064       | 1.285      | 1.650          |          |
|                           | BPN3  | 6     | 1  | 7   | 3.89 | .088       | 1.760      | 3.099          |          |
|                           | BPN4  | 6     | 1  | 7   | 3.60 | .089       | 1.780      | 3.168          |          |
|                           | BPN5  | 6     | 1  | 7   | 5.64 | .054       | 1.081      | 1.169          |          |
|                           | BPN6  | 5     | 2  | 7   | 5.91 | .052       | 1.038      | 1.077          |          |
|                           | BPN7  | 6     | 1  | 7   | 4.11 | .095       | 1.910      | 3.648          |          |
|                           | BPN8  | 6     | 1  | 7   | 5.32 | .074       | 1.495      | 2.235          |          |
|                           | BPN9  | 6     | 1  | 7   | 5.42 | .066       | 1.324      | 1.752          |          |
|                           | BPN10 | 6     | 1  | 7   | 4.47 | .089       | 1.785      | 3.188          |          |
|                           | BPN11 | 6     | 1  | 7   | 3.52 | .080       | 1.599      | 2.558          |          |
|                           | BPN12 | 6     | 1  | 7   | 5.39 | .061       | 1.226      | 1.504          |          |
|                           | BPN13 | 6     | 1  | 7   | 5.51 | .066       | 1.321      | 1.744          |          |
|                           | BPN14 | 6     | 1  | 7   | 5.36 | .064       | 1.296      | 1.680          |          |
|                           | BPN15 | 6     | 1  | 7   | 3.55 | .087       | 1.751      | 3.067          |          |
|                           | BPN16 | 6     | 1  | 7   | 3.77 | .099       | 1.988      | 3.953          |          |
|                           | BPN17 | 6     | 1  | 7   | 5.18 | .074       | 1.494      | 2.231          |          |
|                           | BPN18 | 6     | 1  | 7   | 5.15 | .085       | 1.704      | 2.904          |          |
|                           | BPN19 | 6     | 1  | 7   | 4.65 | .090       | 1.808      | 3.270          |          |
|                           | BPN20 | 6     | 1  | 7   | 4.56 | .088       | 1.774      | 3.145          |          |
|                           | BPN21 | 6     | 1  | 7   | 5.62 | .053       | 1.072      | 1.150          |          |
| **Self-leadership**       | SELFLD1| 4    | 1  | 5   | 3.93 | .039       | .781       | .611           |          |
|                           | SELFLD2| 4    | 1  | 5   | 4.07 | .043       | .860       | .740           |          |
|                           | SELFLD3| 4    | 1  | 5   | 3.84 | .057       | 1.148      | 1.318          |          |
|                           | SELFLD4| 4    | 1  | 5   | 4.11 | .038       | .761       | .579           |          |
|                           | SELFLD5| 4    | 1  | 5   | 4.12 | .039       | .784       | .614           |          |
|                           | SELFLD6| 4    | 1  | 5   | 4.06 | .037       | .749       | .562           |          |
|                           | SELFLD7| 4    | 1  | 5   | 4.07 | .038       | .757       | .573           |          |
|                           | SELFLD8| 4    | 1  | 5   | 3.85 | .053       | 1.057      | 1.118          |          |
|                           | SELFLD9| 4    | 1  | 5   | 4.07 | .036       | .722       | .521           |          |
| **Career Adaptability**   | CADAPT1| 4    | 1  | 5   | 3.91 | .049       | .994       | .988           |          |
|                           | CADAPT2| 4    | 1  | 5   | 3.71 | .048       | .960       | .922           |          |
|                           | CADAPT3| 4    | 1  | 5   | 3.92 | .047       | .948       | .899           |          |
|                           | CADAPT4| 4    | 1  | 5   | 4.09 | .045       | .908       | .824           |          |
|                           | CADAPT5| 4    | 1  | 5   | 4.40 | .038       | .757       | .573           |          |
|                           | CADAPT6| 4    | 1  | 5   | 3.96 | .050       | .997       | .994           |          |
|                           | CADAPT7| 4    | 1  | 5   | 3.93 | .047       | .948       | .898           |          |
|                           | CADAPT8| 4    | 1  | 5   | 4.24 | .040       | .798       | .637           |          |
|                           | CADAPT9| 4    | 1  | 5   | 4.03 | .044       | .875       | .766           |          |
|                           | CADAPT10| 4    | 1 | 5   | 4.35 | .037       | .748       | .560           |          |
|                           | CADAPT11| 4   | 1  | 5   | 4.00 | .043       | .869       | .754           |          |
|                           | CADAPT12| 4   | 1 | 5   | 4.02 | .044       | .880       | .774           |          |
| **Life-satisfaction**     | LIFESAT1| 4   | 1  | 5   | 2.97 | .053       | 1.067      | 1.138          |          |
|                           | LIFESAT2| 4    | 1  | 5   | 2.74 | .054       | 1.082      | 1.172          |          |
|                           | LIFESAT3| 4    | 1  | 5   | 3.15 | .057       | 1.149      | 1.321          |          |
|                           | LIFESAT4| 4    | 1  | 5   | 2.99 | .053       | 1.072      | 1.149          |          |
|                           | LIFESAT5| 4    | 1  | 5   | 2.40 | .062       | 1.249      | 1.561          |          |
Table 3  
Correlations among the variables

| Variables                              | 1.   | 2.   | 3.   | 4.   | 5.   |
|----------------------------------------|------|------|------|------|------|
| 1. Academic self-efficacy              | -    |      |      |      |      |
| 2. Basic psychological needs           | .35  | -    |      |      |      |
| 3. Self-leadership                     | .40  | .43  | -    |      |      |
| 4. Career adaptability                 | .51  | .53  | .53  | -    |      |
| 5. Life-satisfaction                   | .22  | .44  | .25  | .33  | -    |

Note. All the correlations are significant at .01 level.

from all participants. The anonymity of participants was ensured in the survey which did not include any personal information. SEM with latent variables was used to test the hypothetical model, LISREL 8.7 was used to conduct the analysis. T values were used to evaluate the path coefficients in the model. The final model was determined using the Chi-square difference test ($\chi^2$). For the mediation test, a nested model method was also applied.

**Ethics Statement**

The ethics committee of Anadolu University approved the surveys before implementation (Protocol Number 81783), respondents provide consent to use the information for academic purposes, and participation was totally voluntary.

**CRediT Author Statement**

**FUG**: Conceptualization, Investigation, Writing – Reviewing and Editing; **EEŞ**: Conceptualization, Data Curation, Methodology, Software, Visualization, Formal Analysis.

**Declaration of Competing Interest**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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