Data Article

Data on higher education student ethics model

Setyabudi Indartono

Yogyakarta State University, Indonesia

1. Data

Data were collected from instruments measuring students' ethics, motivation, self-efficacy, resilience, knowledge articulation, team strain, and cooperative classroom environment (Tables 1–8). The 14 items from the ethical behaviour (ET1–ET14) instruments from Rodzalan and Saat were adopted [1]. The 14 items on learning motivation (Mot1–Mot15) were developed by Mistler-Jackson and Butler Songer [2]. The 6 items on self-efficacy (SE1–SE6) and the 6 items on resilience (R1–R6) were developed by Luthans and Youssef [3]. Knowledge articulation (KA1–KA5) was measured based on 5 items from Kale and Singh [4]. The 3 team strain (TS1–TS3) items were adopted from Schein [5], and the 5 items on cooperative classroom environment (CCE1–CCE5) were developed from Premo, Cavagnetto, and Lamb [6].

E-mail address: setyabudi_indartono@uny.ac.id.

https://doi.org/10.1016/j.dib.2019.104904
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Distribution of students by department

Data were collected from a higher education institution in Indonesia. This study collected 566 surveys completed by respondents from various departments, such as the economic (20.1%), engineering (17.3%), mathematics and natural science (15%), social science (10%), sports science (2.7%), art (21.2%) and educational science (12.9%) departments.

Table 1

| No | Items measuring ethical behaviour. |
|----|-----------------------------------|
| ET 1 | I behave unethically when asked to do so by my lecturers, even though it contradicts my ethical principles. |
| ET 2 | When my lecturers ask me to do something unethical, I am committed to showing my obedience. |
| ET 3 | I behave unethically (i.e., plagiarize, stealing) because of pressures (i.e., time and economic constraints). |
| ET 4 | I prefer not to report friends’ unethical behaviour to lecturers. |
| ET 5 | I commit unethical action when it is beyond my control (e.g., I plagiarize because the academic system emphasises excellent results). |
| ET 6 | Using a copy machine, paper and other supplies for personal use is not unethical behaviour. |
| ET 7 | I hold to my principle that honesty is more important than getting good grades. |
| ET 8 | I take full responsibility for any unethical actions that I take (e.g., I would confess if lecturers found me plagiarizing some assignments). |
| ET 9 | I behave ethically and adhere to regulations and codes of ethics outlined by the university. |
| ET 10 | I will accept all opinions/considerations of others if I need to make a decision regarding an ethical dilemma. |
| ET 11 | During my studies at university, I referred to others to resolve ethical dilemmas. |
| ET 12 | I personally dealt with ethical dilemmas while studying at university. |
| ET 13 | I have been confronted with ethical dilemmas during my studies at university. |
| ET 14 | The faculty (i.e., lecturers, administrators) will reward me when I do something ethical. |
### Table 2
Items measuring learning motivation.

| No | Items |
|----|-------|
| Mot 1. | In general, I believe I can do some assignments well, but not all of them. |
| Mot 2. | In general, I believe I can do any assignment well. |
| Mot 3. | In general, I believe I can only do a few assignments well. |
| Mot 4. | In terms of effort, I sometimes try my best. |
| Mot 5. | In terms of effort, I rarely try my best. |
| Mot 6. | In terms of effort, I always try my best. |
| Mot 7. | When my teacher asks a question in class, I volunteer (raise my hand) to answer a lot. |
| Mot 8. | When my teacher asks a question in class, I never volunteer to answer. |
| Mot 9. | When my teacher asks a question in class, I volunteer to answer every once in a while. |
| Mot 10. | If I do not understand something on my homework, the first thing I do is look it up or keep trying by myself. |
| Mot 11. | If I do not understand something on my homework, the first thing I do is skip it. |
| Mot 12. | If I do not understand something on my homework, the first thing I do is ask somebody for help. |
| Mot 13. | I wish my grades were better. |
| Mot 14. | I am happy with my grades. |
| Mot 15. | I don’t care about my grades. |

### Table 3
Items measuring efficacy.

| No | Items |
|----|-------|
| SE1. | I feel confident analysing the long-term problem of finding a solution in my study. |
| SE2. | I feel confident representing my department at various events. |
| SE3. | I feel confident contributing to the discussion of learning strategies. |
| SE4. | I feel confident helping to achieve targets/goals in my department. |
| SE5. | I feel confident contacting people outside of the department to discuss learning issues. |
| SE6. | I feel confident presenting information to my study colleagues. |

### Table 4
Items measuring resilience.

| No | Items |
|----|-------|
| R1. | When uncertain things happen to me on campus, I usually come to the best conclusion. |
| R2. | When mistakes happen to me, I take it as a sign of success. |
| R3. | I always see the positive side of my learning. |
| R4. | I am optimistic about what will happen to me in the future as relates to my study. |
| R5. | In achieving my learning goals, I have encountered many failures. |
| R6. | In learning, I always face various obstacles. |

### Table 5
Items measuring team strain.

| No | Items |
|----|-------|
| TS1. | My study group felt that if there was a problem on campus (e.g., grades, communication, etc.), then the course task would help solve those problems. |
| TS2. | My study group feels that the problems in the campus environment (related to employment opportunities, parent expectations, or curriculum) can be mitigated by course assignments. |
| TS3. | My study group feels that, if there is a problem with employment, then the industrial practice task can help solve the problem. |
Data analysis

The dataset was tested for the quality and adequacy of the measurement model, as suggested by Anderson and Garbing [7], to confirm the previous multi-item construct validation, construct validity and construct reliability. The deletion of some items was found to increase acceptable fit. The Cronbach’s alpha values for each construct [8] are displayed in Table 9, all showing at least 0.7. Thus, internal consistency was found for all of the constructs measured. Convergent validity was determined by the value of the correlation between each construct (Table 10). Fornell and Larcker suggest that correlations lower than .85 among constructs are good [9]. Therefore, the constructs used in this study show good convergent validity.

Experimental design, materials and methods

The statistical analysis conducted using AMOS version 7.0 showed that the model had an acceptable fit. The chi-squared test (df = 5, \( \chi^2 = 28.313 \)) was significant (p < 0.01) [10]. The ratio of chi-square to degree of freedom (df) was 5.66 [11] (CFI = 0.947, IFI = 0.948, NFI = 0.938, and TLI = 0.856). Thus, based on the model fit standards endorsed by Marcoulides and Schumacker, the results of CFA indicated a satisfactory fit for the measurement model [12].
### Table 9
Data file items.

| Factors                        | Cronbach a | Items   | Loadings |
|--------------------------------|------------|---------|----------|
| Student Ethics                 | .844       | ET12    | .824     |
|                               |            | ET13    | .793     |
| Motivation                     | .693       | Mot5    | .573     |
|                               |            | Mot8    | .568     |
|                               |            | Mot11   | .635     |
| Self-efficacy                  | .825       | SE1     | .541     |
|                               |            | SE2     | .585     |
|                               |            | SE3     | .622     |
|                               |            | SE4     | .596     |
|                               |            | SE5     | .609     |
|                               |            | SE6     | .685     |
| Resilience                     | .739       | R2      | .537     |
|                               |            | R5      | .649     |
|                               |            | R6      | .653     |
| Knowledge articulation         | .870       | KA1     | .644     |
|                               |            | KA2     | .677     |
|                               |            | KA3     | .698     |
|                               |            | KA4     | .679     |
|                               |            | KA5     | .606     |
| Team strain                    | .912       | TS10    | .503     |
|                               |            | TS11    | .581     |
|                               |            | TS12    | .631     |
|                               |            | TS13    | .755     |
|                               |            | TS14    | .799     |
|                               |            | TS15    | .825     |
|                               |            | TS16    | .680     |
|                               |            | TS17    | .659     |
| Cooperative classroom environment | .849   | CCE1    | .641     |
|                               |            | CCE3    | .543     |
|                               |            | CCE4    | .600     |
|                               |            | CCE5    | .609     |
|                               |            | CCE8    | .519     |
|                               |            | CCE9    | .568     |
|                               |            | CCE10   | .581     |
|                               |            | CCE11   | .599     |

### Table 10
Correlation among constructs.

|        | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 Sex  | .142|     |     |     |     |     |     |     |     |     |     |     |     |
| 2 Income|     | .133| .026| .014|     |     |     |     |     |     |     |     |     |
| 3 Status |     |     | .000| .000|     |     |     |     |     |     |     |     |     |
| 4 Faculty|    |    -| .144|-.174|-.110|-.028|     |     |     |     |     |     |     |
| 5 GPA   |    |    -|    | -.100|-.128|-.138|-.019| .122|     |     |     |     |     |
| 6 Semester|     |     | .111| .044| .028|-.058|-.138|-.019| .122|     |     |     |     |
| 7 Ethics|     |     | .070| .068| .000|-.019|-.049| .017|     |     |     |     |     |
| 8 Motivation|     |     |     |     |     |     |     |     |     |     |     |     |     |
| 9 Resilience| .055| .069|-.016|-.156| .006|-.020| .114| .127|     |     |     |     |     |
| 10 Self-Efficacy| .045| .008| .010| .008| .057|-.048| .097|-.120| .257|     |     |     |     |
| 11 Team Strain| -.112|-.048| .014| .016| .082|-.145| .169| .026| .153| .332|     |     |     |
| 12 Knowledge Articulation| -.082|-.046| .069| .009| .085|-.061| .150|-.124| .185| .365| .404|     |     |
| 13 Cooperative class environment| -.020|-.044| .068|-.078| .002|-.046| .093|-.027| .150| .348| .330| .363|     |

*a* Correlation is significant at the 0.05 level (2-tailed).  
*b* Correlation is significant at the 0.01 level (2-tailed).
An empirical model testing the effects of motivation, self-efficacy, resilience, knowledge articulation, team strain, and cooperative classroom environment on students’ ethics was examined. The SEM analysis of the final model of the ethical behaviour of higher education students is depicted in Fig. 1. The standardized regression weights of the default model are shown in Table 11.

**5. Implication of construct modelling**

Compared to previous datasets, the validation process of the measurement model [7] included item validity and construct reliability and validity. This behaviour model was used to measure the internal and external factors promoting ethical behaviour among higher education students. According to the fit values of the datasets, further investigations of outcomes are encouraged.

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**Fig. 1.** Structural model of student ethical behaviour. Ethics = student ethics, CoopClass = cooperative class environment.

**Table 11**

| Model regression weights. | Estimate | S.E. | C.R. | P        |
|---------------------------|----------|------|------|----------|
| Motivation <- Resilience  | 0.171    | 0.048| 3.563| ***      |
| Motivation <- Knowledge   | -0.249   | 0.065| -3.85| ***      |
| Motivation <- Articulation| 0.192    | 0.041| 4.699| ***      |
| Self-Efficacy <- Resilience| 0.133 | 0.03 | 4.403| ***      |
| Self-Efficacy <- Knowledge| 0.192    | 0.041| 4.699| ***      |
| Team Strain <- Resilience | 0.11     | 0.064| 1.726| 0.084    |
| Team Strain <- Cooperative Class| -0.014 | 0.066| -0.217| 0.829    |
| Self-Efficacy <- Team Strain| 0.157 | 0.04 | 3.912| ***      |
| Self-Efficacy <- Cooperative Class| 0.203 | 0.041| 4.899| ***      |
| ethics <- Motivation       | 0.165    | 0.051| 3.267| 0.001    |
| ethics <- Self-Efficacy    | 0.196    | 0.072| 2.736| 0.006    |
Acknowledgements

The authors wish to acknowledge the management of Yogyakarta State University for providing sponsorship for this research.

Conflict of 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.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.dib.2019.104904.

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