Data Article

Role of gender on academic performance based on different parameters: Data from secondary school education

S. Ranjeeth a, T.P. Latchoumi a,*, P.Victer Paul b

a Department of Computer Science and Engineering, VFSTR (Deemed to be University), Guntur, AP, India
b Department of Computer Science and Engineering, Indian Institute of Information Technology Kottayam, Kerala, India

ARTICLE INFO

Article history:
Received 14 October 2019
Received in revised form 22 January 2020
Accepted 30 January 2020
Available online 10 February 2020

Keywords:
Learning analytics
Higher secondary
Education data mining
Academic performance

ABSTRACT

This data article represents academic performances and personal habits of higher secondary school students in select high school education institutions located at Guntur, Andhra Pradesh, India for the academic year of 2017–18. The dataset of 1116 records, each with 9 parameters and the parameters are mother and father education, the impact of advisor, time spent on study after school, time spent on sports, time spent with mobile per day, the impact of health problems, goal, time spent on yoga or physical exercise. We present descriptive statistics showing mean, median, mode, maximum, minimum, range, standard deviation and variance in the performances of these students and a bar chart representation of the total number of female and male students’ Grade Point Average (GPA) with 9 parameters individually. The primary aim of this clause is providing a comparative analysis of female and male students in GPA scoring based on 9 parameters.

© 2020 The Author(s). Published by Elsevier Inc. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

* Corresponding author.
E-mail address: drtp_cse@vignan.ac.in (T.P. Latchoumi).

https://doi.org/10.1016/j.dib.2020.105257
2352-3409/© 2020 The Author(s). Published by Elsevier Inc. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).
1. Data description

Education is very important for all and it plays a crucial role in their lives, in this article focused on secondary education (10th class (SSC)) passed out (the academic year 2017–18) students' data, which is gathered from secondary education institutes through a questionnaire in the contour of a survey in Guntur, Andhra Pradesh, India. Data contains a total of 1116 understudies' GPA with 9 different parameters, parameters like mother and father education, impact of advisor, time spent on study after school per day, time spent on sports per day, time spent with mobile per day, the impact of health problems, goal and time spent on yoga or physical workouts [1–5]. The principal objective of this data article is gender-wise performance analysis based on different parameters, female and male students are outperformed in scoring GPA more students are scored between 9.0 and 9.9.

Table 1
Descriptive statistics of the number of female and male student's GPA (the academic year 2017–18) with parameter (Mother education).

| Mother Education     | Gender | Mean | std  | Min  | 25%  | 50%  | 75%  | Max  | Total |
|----------------------|--------|------|------|------|------|------|------|------|-------|
| None and Below SSC   | Female | 26.33| 28.98| 0.00 | 7.00 | 17.50| 35.50| 78.00| 158   |
|                      | Male   | 50.16| 57.70| 1.00 | 11.00| 30.5 | 68.75| 153.00| 301   |
| SSC                  | Female | 19.83| 27.69| 1.00 | 2.50 | 17.50| 35.50| 73.00| 119   |
|                      | Male   | 29.33| 34.45| 0.00 | 6.25 | 20.50| 35.50| 93.00| 176   |
| Intermediate         | Female | 12.00| 14.09| 0.00 | 2.25 | 8.50 | 14.75| 38.00| 72    |
|                      | Male   | 15.66| 18.29| 0.00 | 2.75 | 11.00| 20.00| 49.00| 94    |
| Graduate             | Female | 9.50 | 10.15| 0.00 | 1.25 | 7.50 | 14.50| 26.00| 57    |
|                      | Male   | 13.83| 15.18| 0.00 | 4.00 | 11.00| 15.75| 42.00| 83    |
| PG and More          | Female | 4.00 | 4.97 | 0.00 | 0.25 | 3.00 | 5.00 | 13.00| 24    |
|                      | Male   | 5.33 | 8.28 | 0.00 | 1.25 | 2.50 | 3.75 | 22.00| 32    |
Descriptive statistics on the number of female and male students’ GPA performance of the academic year 2018 based on 9 different parameters are recorded in Tables 1–9.

2. Experimental design, materials, and methods

Data of female and male secondary education students were collected from the secondary education institutes in the form of a questionnaire and got an official approval letter from secondary educational institutes in India. Data contains the final GPA (Grade Point Average) of the academic year 2017–18 with 9 parameters. Figures from 1 to 18 shows the bar chart of the total number of female and male students’ GPA based on nine different parameters that provides in Tables 10–20.

Table 2
Descriptive statistics of the number of female and male student’s GPA (the academic year 2017–18) with parameter (Father education).

| Father education | Gender | Mean | std | Min | 25% | 50% | 75% | Max | Total |
|------------------|--------|------|-----|-----|-----|-----|-----|-----|-------|
| None and Below SSC<br>Female | 22.66 | 25.68 | 0.00 | 5.50 | 13.00 | 33.25 | 67.00 | 136 |
| Male | 39.00 | 46.35 | 1.00 | 5.75 | 23.50 | 54.75 | 121.00 | 234 |
| SSC<br>Female | 13.00 | 17.06 | 0.00 | 2.75 | 7.50 | 13.75 | 46.00 | 78 |
| Male | 21.83 | 24.82 | 0.00 | 7.00 | 13.00 | 28.00 | 67.00 | 131 |
| Intermediate<br>Female | 14.66 | 16.37 | 1.00 | 2.75 | 10.00 | 19.50 | 44.00 | 88 |
| Male | 21.50 | 24.90 | 0.00 | 5.00 | 14.50 | 27.00 | 67.00 | 129 |
| Graduate<br>Female | 15.50 | 18.99 | 0.00 | 2.00 | 12.00 | 17.50 | 51.00 | 93 |
| Male | 21.16 | 24.44 | 0.00 | 5.50 | 15.50 | 26.25 | 64.00 | 127 |
| PG and More<br>Female | 5.83 | 7.70 | 0.00 | 0.25 | 3.50 | 7.50 | 20.00 | 35 |
| Male | 10.83 | 14.68 | 0.00 | 3.25 | 7.00 | 8.50 | 40.00 | 65 |

Table 3
Descriptive statistics of the number of female and male student’s GPA (the academic year 2017–18) with parameter (Advisor impact).

| Advisor Impact | Gender | Mean | std | Min | 25% | 50% | 75% | Max | Total |
|----------------|--------|------|-----|-----|-----|-----|-----|-----|-------|
| Low<br>Female | 2.66 | 2.06 | 0.00 | 1.25 | 2.50 | 4.50 | 5.00 | 16 |
| Male | 4.83 | 7.62 | 0.00 | 1.00 | 1.50 | 4.25 | 20.00 | 29 |
| Medium<br>Female | 26.33 | 31.28 | 0.00 | 7.75 | 2.50 | 35.00 | 83.00 | 158 |
| Male | 42.00 | 44.97 | 1.00 | 7.75 | 31.50 | 59.75 | 119.00 | 252 |
| High<br>Female | 25.16 | 32.10 | 0.00 | 3.25 | 18.50 | 27.00 | 86.00 | 151 |
| Male | 41.00 | 50.76 | 0.00 | 11.00 | 21.50 | 50.00 | 136.00 | 246 |
| Very High<br>Female | 9.83 | 11.44 | 0.00 | 0.25 | 8.00 | 15.00 | 28.00 | 59 |
| Male | 19.50 | 21.62 | 0.00 | 4.00 | 14.50 | 22.00 | 59.00 | 117 |
| No Impact<br>Female | 7.66 | 9.85 | 0.00 | 1.25 | 4.00 | 9.75 | 26.00 | 46 |
| Male | 7.16 | 9.86 | 0.00 | 0.25 | 3.00 | 10.25 | 25.00 | 43 |

Table 4
Descriptive statistics of the number of female and male student’s GPA (the academic year 2017–18) with parameter (time spent on study after school).

| Time spent | Gender | Mean | std | Min | 25% | 50% | 75% | Max | Total |
|------------|--------|------|-----|-----|-----|-----|-----|-----|-------|
| No time<br>Female | 11.16 | 11.82 | 1.00 | 3.00 | 8.50 | 13.25 | 33.00 | 67 |
| Male | 22.66 | 26.52 | 0.00 | 4.00 | 14.00 | 32.25 | 69.00 | 136 |
| 1hr<br>Female | 14.33 | 15.83 | 0.00 | 4.75 | 10.50 | 16.25 | 44.00 | 86 |
| Male | 25.00 | 25.61 | 0.00 | 7.25 | 20.00 | 32.75 | 70.00 | 150 |
| 2hrs<br>Female | 19.50 | 23.35 | 0.00 | 3.50 | 11.00 | 27.50 | 61.00 | 117 |
| Male | 25.83 | 33.43 | 0.00 | 4.25 | 14.50 | 30.75 | 89.00 | 155 |
| More than 2hrs<br>Female | 26.66 | 34.16 | 0.00 | 2.00 | 18.00 | 32.50 | 90.00 | 160 |
| Male | 40.83 | 47.94 | 1.00 | 11.00 | 26.00 | 47.75 | 131.00 | 245 |
### Table 5
Descriptive statistics of the number of female and male student’s GPA (the academic year 2017–18) with parameter (time spent on sports).

| Time spent     | Gender | Mean  | std  | Min  | 25%  | 50%  | 75%  | Max  | Total |
|----------------|--------|-------|------|------|------|------|------|------|-------|
| No time        | Female | 33.33 | 40.05| 0.00 | 3.75 | 20.50| 48.50| 103.00| 200.00|
|                | Male   | 26.66 | 32.43| 0.00 | 6.25 | 17.50| 30.25| 88.00 | 160.00|
| Less than 30 mins | Female | 20.83 | 25.38| 0.00 | 6.25 | 14.50| 20.50| 70.00 | 125.00|
|                | Male   | 30.16 | 38.18| 0.00 | 6.75 | 21.00| 30.00| 104.00| 181.00|
| 1–2hrs         | Female | 14.16 | 16.14| 1.00 | 2.75 | 10.00| 17.25| 44.00 | 85.00 |
|                | Male   | 42.50 | 50.05| 0.00 | 7.00 | 27.00| 58.25| 132.00| 255.00|
| More than 2hrs | Female | 3.66  | 4.45 | 0.00 | 0.50 | 3.00 | 4.00 | 12.00 | 22.00 |
|                | Male   | 15.00 | 14.89| 1.00 | 4.25 | 9.00 | 27.25| 35.00 | 90.00 |

### Table 6
Descriptive statistics of the number of female and male student’s GPA (the academic year 2017–18) with parameter (time spent with mobile).

| Time spent     | Gender | Mean  | std  | Min  | 25%  | 50%  | 75%  | Max  | Total |
|----------------|--------|-------|------|------|------|------|------|------|-------|
| No time        | Female | 17.50 | 22.34| 0.00 | 1.75 | 9.50 | 24.00| 58.00| 105.00|
|                | Male   | 24.50 | 29.16| 0.00 | 4.75 | 16.50| 30.50| 78.00| 147.00|
| 30 mins        | Female | 24.00 | 27.75| 0.00 | 5.25 | 17.00| 29.50| 75.00| 144.00|
|                | Male   | 20.83 | 24.95| 0.00 | 6.50 | 11.00| 26.00| 67.00| 125.00|
| 1hr            | Female | 11.33 | 11.39| 0.00 | 3.00 | 10.00| 14.75| 31.00| 68.00 |
|                | Male   | 22.00 | 26.75| 0.00 | 5.25 | 15.00| 24.00| 73.00| 132.00|
| 2hrs           | Female | 9.50  | 12.19| 0.00 | 1.50 | 4.00 | 14.00| 31.00| 57.00 |
|                | Male   | 19.83 | 23.45| 0.00 | 3.75 | 11.00| 28.75| 61.00| 119.00|
| More than 2hrs | Female | 9.33  | 12.27| 1.00 | 1.75 | 4.50 | 10.25| 33.00| 56.00 |
|                | Male   | 27.16 | 29.41| 0.00 | 6.75 | 21.00| 34.50| 80.00| 163.00|

### Table 7
Descriptive statistics of the number of female and male student’s GPA (the academic year 2017–18) with parameter (impact of health problems).

| Health problems | Gender | Mean  | std  | Min  | 25%  | 50%  | 75%  | Max  | Total |
|-----------------|--------|-------|------|------|------|------|------|------|-------|
| Always          | Female | 3.00  | 2.82 | 0.00 | 0.50 | 3.00 | 4.75 | 7.00 | 18.00 |
|                 | Male   | 5.50  | 4.84 | 0.00 | 1.25 | 6.00 | 8.50 | 12.00| 33.00 |
| Most of the time| Female | 3.83  | 3.71 | 0.00 | 1.25 | 3.00 | 5.50 | 10.00| 23.00 |
|                 | Male   | 7.00  | 9.20 | 0.00 | 2.00 | 4.00 | 6.75 | 25.00| 42.00 |
| Some times      | Female | 25.10 | 28.57| 1.00 | 6.50 | 16.50| 31.00| 78.00| 151.00|
|                 | Male   | 34.33 | 37.08| 1.00 | 6.25 | 24.00| 50.75| 97.00| 206.00|
| Rarely          | Female | 31.33 | 42.41| 0.00 | 1.00 | 18.50| 39.00| 110.00| 188.00|
|                 | Male   | 50.00 | 64.55| 0.00 | 12.75| 30.00| 51.00| 175.00| 300.00|
| Never           | Female | 8.33  | 8.23 | 0.00 | 3.25 | 6.50 | 10.50| 23.00| 50.00 |
|                 | Male   | 17.50 | 19.55| 0.00 | 4.00 | 10.50| 26.75| 50.00| 105.00|

### Table 8
Descriptive statistics of the number of female and male student’s GPA (the academic year 2017–18) with parameter (impact of goal).

| Goal            | Gender | Mean  | std  | Min  | 25%  | 50%  | 75%  | Max  | Total |
|-----------------|--------|-------|------|------|------|------|------|------|-------|
| Engineer        | Female | 38.33 | 51.06| 0.00 | 3.75 | 24.00| 43.50| 135.00| 230.00|
|                 | Male   | 48.66 | 61.77| 0.00 | 9.75 | 29.50| 55.25| 166.00| 292.00|
| Doctor          | Female | 3.83  | 5.19 | 0.00 | 1.00 | 2.00 | 3.75 | 14.00 | 23.00 |
|                 | Male   | 3.66  | 3.55 | 0.00 | 1.25 | 2.50 | 6.00 | 9.00  | 22.00 |
| Actor           | Female | 0.83  | 0.75 | 0.00 | 0.25 | 1.00 | 1.00 | 2.00  | 05.00 |
|                 | Male   | 3.83  | 3.65 | 0.00 | 1.25 | 3.50 | 5.00 | 10.00 | 23.00 |
| Teacher         | Female | 8.00  | 7.58 | 0.00 | 2.00 | 7.00 | 13.50| 18.00 | 48.00 |
|                 | Male   | 1.83  | 2.31 | 0.00 | 0.25 | 1.00 | 2.50 | 6.00  | 11.00 |
| Politician      | Female | 0.83  | 0.75 | 0.00 | 0.25 | 1.00 | 1.00 | 2.00  | 05.00 |
|                 | Male   | 4.66  | 6.12 | 0.00 | 0.25 | 1.50 | 9.50 | 13.00 | 28.00 |
| Any other       | Female | 19.83 | 22.85| 0.00 | 3   | 12.5 | 29.5 | 59.00 | 119.00|
|                 | Male   | 51.66 | 57.58| 1.00 | 11.5 | 37  | 66.25| 156.00| 310.00|

S. Ranjeeth et al. / Data in brief 29 (2020) 105257
Table 9
Descriptive statistics of the number of female and male student’s GPA (the academic year 2017–18) with parameter (time spent on yoga).

| Yoga Time       | Gender | Mean  | std   | Min  | 25%  | 50%  | 75%  | Max  | Total |
|-----------------|--------|-------|-------|------|------|------|------|------|-------|
| Morning Time    | Female | 14.00 | 16.68 | 0.00 | 1.50 | 10.00| 18.50| 44.00| 84    |
|                 | Male   | 29.66 | 30.50 | 0.00 | 7.25 | 22.00| 44.25| 80.00| 178   |
| Evening Time    | Female | 4.50  | 4.13  | 1.00 | 1.25 | 3.00 | 7.00 | 11.00| 27    |
|                 | Male   | 9.16  | 10.45 | 0.00 | 2.75 | 7.00 | 9.75 | 29.00| 55    |
| In Free time    | Female | 19.00 | 23.17 | 0.00 | 20.00| 14.00| 23.75| 61.00| 114   |
|                 | Male   | 28.66 | 35.43 | 0.00 | 6.50 | 18.50| 32.00| 96.00| 172   |
| Not Interested  | Female | 34.16 | 41.40 | 0.00 | 8.50 | 20.50| 40.75| 112.00|205   |
|                 | Male   | 46.83 | 57.64 | 1.00 | 10.00| 26.50| 58.00| 154.00|281   |

Table 10
The number of female students’ GPA (the academic year 2017–18) based on mother education.

| GPA               | None and Below SSC | SSC | Intermediate | Graduate | Pg and More/JOB |
|-------------------|--------------------|-----|--------------|----------|-----------------|
| 10                | 22                 | 13  | 11           | 16       | 5               |
| 9.0 to 9.9        | 78                 | 73  | 38           | 26       | 13              |
| 8.0 to 8.9        | 40                 | 26  | 16           | 10       | 5               |
| 7.0 to 7.9        | 13                 | 4   | 6            | 5        | 1               |
| 6.0 to 6.9        | 5                  | 2   | 1            | 0        | 0               |
| 5.0 to 5.9        | 0                  | 1   | 0            | 0        | 0               |
| Total             | 158                | 119 | 72           | 57       | 24              |

Table 11
The number of male students’ GPA (the academic year 2017–18) based on mother education.

| GPA               | None and Below SSC | SSC | Intermediate | Graduate | Pg and More/JOB |
|-------------------|--------------------|-----|--------------|----------|-----------------|
| 10                | 26                 | 19  | 8            | 10       | 1               |
| 9.0 to 9.9        | 153                | 93  | 49           | 42       | 22              |
| 8.0 to 8.9        | 80                 | 40  | 22           | 17       | 4               |
| 7.0 to 7.9        | 35                 | 22  | 14           | 12       | 2               |
| 6.0 to 6.9        | 6                  | 2   | 1            | 2        | 3               |
| 5.0 to 5.9        | 1                  | 0   | 0            | 0        | 0               |
| Total             | 301                | 176 | 94           | 83       | 32              |

Table 12
The number of female students’ GPA (the academic year 2017–18) based on father education.

| GPA               | None and Below SSC | SSC | Intermediate | Graduate | Pg and More/JOB |
|-------------------|--------------------|-----|--------------|----------|-----------------|
| 10                | 16                 | 10  | 15           | 18       | 8               |
| 9.0 to 9.9        | 67                 | 46  | 44           | 51       | 20              |
| 8.0 to 8.9        | 39                 | 15  | 21           | 16       | 6               |
| 7.0 to 7.9        | 10                 | 5   | 5            | 8        | 1               |
| 6.0 to 6.9        | 4                  | 2   | 2            | 0        | 0               |
| 5.0 to 5.9        | 0                  | 0   | 1            | 0        | 0               |
| Total             | 136                | 78  | 88           | 93       | 35              |

Table 13
The number of male students’ GPA (the academic year 2017–18) based on father education.

| GPA               | None and Below SSC | SSC | Intermediate | Graduate | Pg and More/JOB |
|-------------------|--------------------|-----|--------------|----------|-----------------|
| 10                | 20                 | 13  | 14           | 10       | 7               |
| 9.0 to 9.9        | 121                | 67  | 67           | 64       | 40              |
| 8.0 to 8.9        | 64                 | 33  | 31           | 28       | 7               |
| 7.0 to 7.9        | 27                 | 13  | 15           | 21       | 9               |
| 6.0 to 6.9        | 1                  | 5   | 2            | 4        | 2               |
| 5.0 to 5.9        | 1                  | 0   | 0            | 0        | 0               |
| Total             | 234                | 131 | 129          | 127      | 65              |
Table 14
The number of female students' GPA (the academic year 2017–18) based advisor impact.

| GPA      | NO IMPACT | LOW | MEDIUM | HIGH | VERY HIGH |
|----------|-----------|-----|--------|------|-----------|
| 6.0 to 6.9 | 0         | 0   | 0      | 0    | 0         |
| 5.0 to 5.9 | 1         | 1   | 6      | 1    | 0         |
| 7.0 to 7.9 | 2         | 3   | 13     | 10   | 1         |
| 10        | 6         | 5   | 14     | 27   | 15        |
| 8.0 to 8.9 | 11        | 2   | 42     | 27   | 15        |
| 9.0 to 9.9 | 26        | 5   | 83     | 86   | 28        |
| Total     | 46        | 16  | 158    | 151  | 59        |

Table 15
The number of male students' GPA (the academic year 2017–18) based advisor impact.

| GPA      | NO IMPACT | LOW | MEDIUM | HIGH | VERY HIGH |
|----------|-----------|-----|--------|------|-----------|
| 5.0 to 5.9 | 0         | 0   | 1      | 0    | 0         |
| 6.0 to 6.9 | 0         | 1   | 4      | 8    | 1         |
| 10        | 1         | 2   | 19     | 20   | 22        |
| 7.0 to 7.9 | 5         | 1   | 44     | 23   | 13        |
| 8.0 to 8.9 | 12        | 5   | 65     | 59   | 22        |
| 9.0 to 9.9 | 25        | 20  | 119    | 136  | 59        |
| Total     | 43        | 29  | 252    | 246  | 117       |

Table 16
The number of female students' GPA (the academic year 2017–18) based time spent on study after school per day.

| GPA      | No time spent | 1 hr | 2 hrs | More than 2hrs |
|----------|---------------|------|-------|----------------|
| 10       | 11            | 14   | 14    | 28             |
| 9.0 to 9.9 | 3            | 44   | 61    | 90             |
| 8.0 to 8.9 | 14           | 17   | 32    | 34             |
| 7.0 to 7.9 | 6            | 7    | 8     | 8              |
| 6.0 to 6.9 | 2            | 4    | 2     | 0              |
| 5.0 to 5.9 | 1            | 0    | 0     | 0              |
| Total    | 67            | 86   | 117   | 160            |

Table 17
The number of male students' GPA (the academic year 2017–18) based time spent on study after school per day.

| GPA      | No time spent | 1 hr | 2 hrs | More than 2hrs |
|----------|---------------|------|-------|----------------|
| 10       | 13            | 17   | 11    | 23             |
| 9.0 to 9.9 | 69           | 70   | 89    | 131            |
| 8.0 to 8.9 | 38           | 36   | 35    | 54             |
| 7.0 to 7.9 | 15           | 23   | 18    | 29             |
| 6.0 to 6.9 | 1            | 4    | 2     | 7              |
| 5.0 to 5.9 | 0            | 0    | 0     | 1              |
| Total    | 136           | 150  | 155   | 245            |

Table 18
The number of female students' GPA (the academic year 2017–18) based time spent on sports per day.

| GPA      | No time spent | Less than 30 mins | 1–2hrs | More than 2hrs |
|----------|---------------|-------------------|--------|----------------|
| 10       | 35            | 16                | 12     | 4              |
| 9.0 to 9.9 | 103          | 70                | 44     | 12             |
| 8.0 to 8.9 | 53           | 22                | 19     | 4              |
| 7.0 to 7.9 | 6            | 13                | 8      | 2              |
| 6.0 to 6.9 | 3            | 4                 | 1      | 0              |
| 5.0 to 5.9 | 0            | 0                 | 1      | 0              |
| Total    | 200           | 125               | 85     | 22             |
The total number of female and male students' GPA based on mother education qualification is shown in Figs. 1, 2.

The total number of female and male students' GPA based on father education qualification is shown in Figs. 3, 4.

The total number of female and male students' GPA based on advisor impact shown in Figs. 5, 6.

The total number of female and male students' GPA based on time spent for study after school shown in Figs. 7, 8.

| GPA       | No time spent | Less than 30 mins | 1–2hrs | More than 2hrs |
|-----------|---------------|-------------------|--------|----------------|
| 10        | 19            | 24                | 16     | 5              |
| 9.0 to 9.9| 88            | 104               | 132    | 35             |
| 8.0 to 8.9| 34            | 32                | 65     | 32             |
| 7.0 to 7.9| 16            | 18                | 38     | 13             |
| 6.0 to 6.9| 3             | 3                 | 4      | 4              |
| 5.0 to 5.9| 0             | 0                 | 0      | 1              |
| Total     | 160           | 181               | 255    | 90             |

| GPA       | No time spent | 30 mins | 1hr | 2 hrs | More than 2hr |
|-----------|---------------|---------|-----|-------|---------------|
| 10        | 15            | 31      | 11  | 5     | 5             |
| 9.0 to 9.9| 58            | 75      | 31  | 31    | 33            |
| 8.0 to 8.9| 27            | 25      | 16  | 17    | 12            |
| 7.0 to 7.9| 4             | 9       | 9   | 3     | 4             |
| 6.0 to 6.9| 1             | 4       | 1   | 1     | 1             |
| 5.0 to 5.9| 0             | 0       | 0   | 0     | 1             |
| Total     | 105           | 144     | 68  | 57    | 56            |

**Table 19**
The number of male students' GPA (the academic year 2017–18) based time spent on sports per day.

**Table 20**
The number of female students' GPA (the academic year 2017–18) based time spent with mobile per day.

---

Fig. 1. The bar chart shows the number of female students’ GPA (the academic year 2017–18) based on mother education.
The total number of female and male students’ GPA based on time spent on sports shown in Figs. 9, 10.

The total number of female and male student’s GPA based on time spent with mobile per day shown in Figs. 11, 12.

Fig. 2. The bar chart shows the number of male student’s GPA (the academic year 2017–18) based on mother education.

Fig. 3. The bar chart shows the number of female students’ GPA (the academic year 2017–18) based on father education.
Fig. 4. The bar chart shows the number of male students’ GPA (the academic year 2017–18) based on father education.

Fig. 5. The bar chart shows the number of female students’ GPA (the academic year 2017–18) based advisor impact.
Fig. 6. The bar chart shows the number of male students’ GPA (the academic year 2017–18) based advisor impact.

Fig. 7. The bar chart shows the number of female students’ GPA (the academic year 2017–18) based time spent on study after school per day.
Fig. 8. The bar chart shows the number of male students’ GPA (the academic year 2017–18) based on time spent on study after school per day.

Fig. 9. The bar chart shows the number of female students’ GPA (the academic year 2017–18) based on time spent on sports per day.
Fig. 10. The bar chart shows the number of male students’ GPA (the academic year 2017–18) based time spent on sports per day.

Fig. 11. The bar chart shows the number of female students’ GPA (the academic year 2017–18) based time spent with mobile per day.
Fig. 12. The bar chart shows the number of male student’s GPA (the academic year 2017–18) based time spent with mobile per day.

Fig. 13. The bar chart shows the number of female students’ GPA (the academic year 2017–18) based impact of health problems.
Fig. 14. The bar chart shows the number of male students’ GPA (the academic year 2017–18) based impact of health problems.

Fig. 15. The bar chart shows the number of female students’ GPA (the academic year 2017–18) based impact of goal.
Fig. 16. The bar chart shows the number of male students’ GPA (the academic year 2017–18) based impact of goal.

Fig. 17. The bar chart shows the number of female students’ GPA (the academic year 2017–18) based time spent on yoga or physical exercise.
The bar chart shows the number of male students’ GPA (the academic year 2017–18) based time spent on yoga or physical exercise.

### Table 21
The number of male students’ GPA (the academic year 2017–18) based time spent with mobile per day.

| GPA       | No time spent | 30 mins | 1hr | 2 hrs | More than 2hr |
|-----------|---------------|---------|-----|-------|---------------|
| 10        | 17            | 11      | 12  | 6     | 18            |
| 9.0 to 9.9| 78            | 67      | 73  | 61    | 80            |
| 8.0 to 8.9| 35            | 31      | 26  | 33    | 38            |
| 7.0 to 7.9| 16            | 11      | 18  | 16    | 24            |
| 6.0 to 6.9| 0             | 5       | 3   | 3     | 3             |
| 5.0 to 5.9| 1             | 0       | 0   | 0     | 0             |
| Total     | 147           | 125     | 132 | 119   | 163           |

### Table 22
The number of female students’ GPA (the academic year 2017–18) based impact of health problems.

| GPA       | Always | Most of the time | Some times | Rarely | Never |
|-----------|--------|------------------|------------|--------|-------|
| 10        | 2      | 4                | 19         | 33     | 9     |
| 9.0 to 9.9| 7      | 10               | 78         | 110    | 23    |
| 8.0 to 8.9| 4      | 6                | 35         | 41     | 11    |
| 7.0 to 7.9| 5      | 2                | 14         | 4      | 4     |
| 6.0 to 6.9| 0      | 1                | 4          | 0      | 3     |
| 5.0 to 5.9| 0      | 0                | 1          | 0      | 0     |
| Total     | 18     | 23               | 151        | 188    | 50    |
The total number of female and male students’ GPA based on the impact of health problems shown in Figs. 13, 14.

The total number of female and male students’ GPA based on the goal shown in Figs. 15, 16.

The total number of female and male student’s GPA based on time spent on yoga or physical exercise shown in Tables 21–27 and Figs 17, 18.

### Table 23
The number of male students’ GPA (the academic year 2017–18) based impact of health problems.

| GPA      | Always | Most of the time | Some times | Rarely | Never |
|----------|--------|------------------|------------|--------|-------|
| 10       | 5      | 2                | 16         | 30     | 11    |
| 9.0 to 9.9 | 12     | 25               | 97         | 175    | 50    |
| 8.0 to 8.9 | 9      | 7                | 57         | 58     | 32    |
| 7.0 to 7.9 | 7      | 6                | 32         | 30     | 10    |
| 6.0 to 6.9 | 0      | 2                | 3          | 7      | 2     |
| 5.0 to 5.9 | 0      | 0                | 1          | 0      | 0     |
| Total    | 33     | 42               | 206        | 300    | 105   |

### Table 24
The number of female students’ GPA (the academic year 2017–18) based impact of goal.

| GPA      | Engineer | Doctor | Actor | Teacher | Politician | any other |
|----------|----------|--------|-------|---------|------------|-----------|
| 10       | 39       | 3      | 2     | 2       | 2          | 19        |
| 9.0 to 9.9 | 135     | 14     | 1     | 18      | 1          | 59        |
| 8.0 to 8.9 | 45      | 4      | 0     | 14      | 1          | 33        |
| 7.0 to 7.9 | 9       | 1      | 1     | 12      | 0          | 6         |
| 6.0 to 6.9 | 2       | 1      | 0     | 2       | 1          | 2         |
| 5.0 to 5.9 | 0       | 0      | 1     | 0       | 0          | 0         |
| Total    | 230      | 23     | 5     | 48      | 5          | 119       |

### Table 25
The number of male students’ GPA (the academic year 2017–18) based impact of goal.

| GPA      | Engineer | Doctor | Actor | Teacher | Politician | any other |
|----------|----------|--------|-------|---------|------------|-----------|
| 10       | 32       | 2      | 2     | 1       | 2          | 25        |
| 9.0 to 9.9 | 166     | 9      | 10    | 6       | 12         | 156       |
| 8.0 to 8.9 | 63      | 7      | 5     | 3       | 13         | 72        |
| 7.0 to 7.9 | 27      | 3      | 5     | 1       | 0          | 49        |
| 6.0 to 6.9 | 4       | 1      | 1     | 0       | 1          | 7         |
| 5.0 to 5.9 | 0       | 0      | 0     | 0       | 0          | 1         |
| Total    | 292      | 22     | 23    | 11      | 28         | 310       |

### Table 26
The number of female students’ GPA (the academic year 2017–18) based time spent on yoga or physical exercise.

| GPA      | Morning | Evening | In Free time | not interested |
|----------|---------|---------|--------------|----------------|
| 10       | 14      | 4       | 24           | 25             |
| 9.0 to 9.9 | 44      | 11      | 61           | 112            |
| 8.0 to 8.9 | 20      | 8       | 23           | 46             |
| 7.0 to 7.9 | 6       | 2       | 5            | 16             |
| 6.0 to 6.9 | 0       | 1       | 1            | 6              |
| 5.0 to 5.9 | 0       | 1       | 0            | 0              |
| Total    | 84      | 27      | 114          | 205            |
Acknowledgments

Thanks to all secondary education institutes in Guntur and Tenali, Andhra Pradesh, India.

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.

References

[1] M.J. Temitope, A.B. Joke, I.P. Segun, The role of gender on academic performance in STEM-related disciplines: data from a tertiary institution, Data in brief 18 (2018) 360–374.
[2] C. Klein, J. Lester, H. Rangwala, A. Johri, Learning analytics tools in higher education: adoption at the intersection of institutional commitment and individual action, Rev. High. Educ. 42 (2019) 565–593.
[3] Fischer Franziska, Schult Johannes, H. Benedikt, Sex differences in secondary school success: why female students perform better, Eur. J. Psychol. Educ. 28 (2013) 529–543.
[4] T. Howard, Physical activity and student performance at school, J. Sch. Health 75 (2005) 214–218.
[5] G. James, Relation of parental involvement, empowerment, and school traits to student academic performance, J. Educ. Res. 90 (2010) 33–41.

Table 27
The number of male students’ GPA (the academic year 2017–18) based time spent on yoga or physical exercise.

| GPA       | Morning | Evening | In Free time | not interested |
|-----------|---------|---------|--------------|----------------|
| 10        | 17      | 5       | 17           | 25             |
| 9.0 to 9.9| 80      | 29      | 96           | 154            |
| 8.0 to 8.9| 50      | 9       | 36           | 68             |
| 7.0 to 7.9| 27      | 10      | 20           | 28             |
| 6.0 to 6.9| 4       | 2       | 3            | 5              |
| 5.0 to 5.9| 0       | 0       | 0            | 1              |
| Total     | 178     | 55      | 172          | 281            |