**Results**

**Mediation Analysis**

**Parameter estimates**

| **Direct effects** | | | | | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | | | | | **95% Confidence Interval** | | | |
|  | |  | |  | | **Estimate** | | **Std. Error** | | **z-value** | | **p** | | **Lower** | | **Upper** | |
| Family |  | → |  | Postive Affect |  | 0.021 |  | 0.016 |  | 1.279 |  | 0.201 |  | -0.011 |  | 0.053 |  |
| Friend |  | → |  | Postive Affect |  | 0.006 |  | 0.012 |  | 0.454 |  | 0.650 |  | -0.019 |  | 0.030 |  |
|  | | | | | | | | | | | | | | | | | |
| *Note.*  Delta method standard errors, normal theory confidence intervals, ML estimator. | | | | | | | | | | | | | | | | | |

| **Indirect effects** | | | | | | | | | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | | | | | | | | | **95% Confidence Interval** | | | |
|  | |  | |  | |  | |  | | **Estimate** | | **Std. Error** | | **z-value** | | **p** | | **Lower** | | **Upper** | |
| Family |  | → |  | Intrinsic Motivation |  | → |  | Postive Affect |  | 0.012 |  | 0.006 |  | 2.189 |  | 0.029 |  | 0.001 |  | 0.023 |  |
| Family |  | → |  | Extrinsic Motivation |  | → |  | Postive Affect |  | -2.223×10-4 |  | 0.003 |  | -0.075 |  | 0.940 |  | -0.006 |  | 0.006 |  |
| Friend |  | → |  | Intrinsic Motivation |  | → |  | Postive Affect |  | 0.004 |  | 0.003 |  | 1.109 |  | 0.267 |  | -0.003 |  | 0.010 |  |
| Friend |  | → |  | Extrinsic Motivation |  | → |  | Postive Affect |  | -1.999×10-5 |  | 2.773×10-4 |  | -0.072 |  | 0.943 |  | -5.635×10-4 |  | 5.235×10-4 |  |
|  | | | | | | | | | | | | | | | | | | | | | |
| *Note.*  Delta method standard errors, normal theory confidence intervals, ML estimator. | | | | | | | | | | | | | | | | | | | | | |

| **Total effects** | | | | | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | | | | | **95% Confidence Interval** | | | |
|  | |  | |  | | **Estimate** | | **Std. Error** | | **z-value** | | **p** | | **Lower** | | **Upper** | |
| Family |  | → |  | Postive Affect |  | 0.033 |  | 0.017 |  | 2.004 |  | 0.045 |  | 7.201×10-4 |  | 0.065 |  |
| Friend |  | → |  | Postive Affect |  | 0.009 |  | 0.013 |  | 0.718 |  | 0.473 |  | -0.016 |  | 0.034 |  |
|  | | | | | | | | | | | | | | | | | |
| *Note.*  Delta method standard errors, normal theory confidence intervals, ML estimator. | | | | | | | | | | | | | | | | | |

| **Total indirect effects** | | | | | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | | | | | **95% Confidence Interval** | | | |
|  | |  | |  | | **Estimate** | | **Std. Error** | | **z-value** | | **p** | | **Lower** | | **Upper** | |
| Family |  | → |  | Postive Affect |  | 0.012 |  | 0.005 |  | 2.460 |  | 0.014 |  | 0.002 |  | 0.022 |  |
| Friend |  | → |  | Postive Affect |  | 0.003 |  | 0.003 |  | 1.138 |  | 0.255 |  | -0.003 |  | 0.010 |  |
|  | | | | | | | | | | | | | | | | | |
| *Note.*  Delta method standard errors, normal theory confidence intervals, ML estimator. | | | | | | | | | | | | | | | | | |

| **Residual covariances** | | | | | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | | | | | **95% Confidence Interval** | | | |
|  | |  | |  | | **Estimate** | | **Std. Error** | | **z-value** | | **p** | | **Lower** | | **Upper** | |
| Intrinsic Motivation |  | ↔ |  | Extrinsic Motivation |  | 0.615 |  | 0.069 |  | 8.852 |  | < .001 |  | 0.479 |  | 0.751 |  |
|  | | | | | | | | | | | | | | | | | |
| *Note.*  Delta method standard errors, normal theory confidence intervals, ML estimator. | | | | | | | | | | | | | | | | | |

| **Path coefficients** | | | | | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | | | | | **95% Confidence Interval** | | | |
|  | |  | |  | | **Estimate** | | **Std. Error** | | **z-value** | | **p** | | **Lower** | | **Upper** | |
| Intrinsic Motivation |  | → |  | Postive Affect |  | 0.235 |  | 0.079 |  | 2.969 |  | 0.003 |  | 0.080 |  | 0.390 |  |
| Extrinsic Motivation |  | → |  | Postive Affect |  | -0.006 |  | 0.078 |  | -0.075 |  | 0.940 |  | -0.158 |  | 0.147 |  |
| Family |  | → |  | Postive Affect |  | 0.021 |  | 0.016 |  | 1.279 |  | 0.201 |  | -0.011 |  | 0.053 |  |
| Friend |  | → |  | Postive Affect |  | 0.006 |  | 0.012 |  | 0.454 |  | 0.650 |  | -0.019 |  | 0.030 |  |
| Family |  | → |  | Intrinsic Motivation |  | 0.053 |  | 0.016 |  | 3.240 |  | 0.001 |  | 0.021 |  | 0.084 |  |
| Friend |  | → |  | Intrinsic Motivation |  | 0.015 |  | 0.013 |  | 1.195 |  | 0.232 |  | -0.010 |  | 0.039 |  |
| Family |  | → |  | Extrinsic Motivation |  | 0.038 |  | 0.016 |  | 2.317 |  | 0.021 |  | 0.006 |  | 0.071 |  |
| Friend |  | → |  | Extrinsic Motivation |  | 0.003 |  | 0.013 |  | 0.270 |  | 0.787 |  | -0.022 |  | 0.028 |  |
|  | | | | | | | | | | | | | | | | | |
| *Note.*  Delta method standard errors, normal theory confidence intervals, ML estimator. | | | | | | | | | | | | | | | | | |

| **R-Squared** | | | |
| --- | --- | --- | --- |
|  | | **R²** | |
| Postive Affect |  | 0.072 |  |
| Intrinsic Motivation |  | 0.056 |  |
| Extrinsic Motivation |  | 0.024 |  |
|  | | | |

**Descriptive demographics**

| **Descriptive Statistics** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **Valid** | | **Mean** | | **Std. Deviation** | |
| Gender |  | 268 |  |  |  |  |  |
| Grade |  | 268 |  |  |  |  |  |
| Major |  | 268 |  |  |  |  |  |
| Tribe |  | 268 |  |  |  |  |  |
| Age |  | 268 |  | 16.817 |  | 0.665 |  |
|  | | | | | | | |
| *Note.*  Not all values are available for *Nominal Text* variables | | | | | | | |

**Frequency Tables**

| **Frequencies for Gender** | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gender** | | **Frequency** | | **Percent** | | **Valid Percent** | | **Cumulative Percent** | |
| Men |  | 105 |  | 39.179 |  | 39.179 |  | 39.179 |  |
| Women |  | 163 |  | 60.821 |  | 60.821 |  | 100.000 |  |
| Missing |  | 0 |  | 0.000 |  |  |  |  |  |
| Total |  | 268 |  | 100.000 |  |  |  |  |  |
|  | | | | | | | | | |

| **Frequencies for Grade** | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Grade** | | **Frequency** | | **Percent** | | **Valid Percent** | | **Cumulative Percent** | |
| XI Class |  | 137 |  | 51.119 |  | 51.119 |  | 51.119 |  |
| XII Class |  | 131 |  | 48.881 |  | 48.881 |  | 100.000 |  |
| Missing |  | 0 |  | 0.000 |  |  |  |  |  |
| Total |  | 268 |  | 100.000 |  |  |  |  |  |
|  | | | | | | | | | |

| **Frequencies for Major** | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Major** | | **Frequency** | | **Percent** | | **Valid Percent** | | **Cumulative Percent** | |
| IPA |  | 165 |  | 61.567 |  | 61.567 |  | 61.567 |  |
| IPS |  | 103 |  | 38.433 |  | 38.433 |  | 100.000 |  |
| Missing |  | 0 |  | 0.000 |  |  |  |  |  |
| Total |  | 268 |  | 100.000 |  |  |  |  |  |
|  | | | | | | | | | |

| **Frequencies for Age** | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Age** | | **Frequency** | | **Percent** | | **Valid Percent** | | **Cumulative Percent** | |
| 16 |  | 88 |  | 32.836 |  | 32.836 |  | 32.836 |  |
| 17 |  | 141 |  | 52.612 |  | 52.612 |  | 85.448 |  |
| 18 |  | 39 |  | 14.552 |  | 14.552 |  | 100.000 |  |
| Missing |  | 0 |  | 0.000 |  |  |  |  |  |
| Total |  | 268 |  | 100.000 |  |  |  |  |  |
|  | | | | | | | | | |

| **Frequencies for Tribe** | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Tribe** | | **Frequency** | | **Percent** | | **Valid Percent** | | **Cumulative Percent** | |
| Aceh |  | 2 |  | 0.746 |  | 0.746 |  | 0.746 |  |
| Banten |  | 1 |  | 0.373 |  | 0.373 |  | 1.119 |  |
| Batak |  | 55 |  | 20.522 |  | 20.522 |  | 21.642 |  |
| Jawa |  | 151 |  | 56.343 |  | 56.343 |  | 77.985 |  |
| Karo |  | 35 |  | 13.060 |  | 13.060 |  | 91.045 |  |
| Khan |  | 2 |  | 0.746 |  | 0.746 |  | 91.791 |  |
| Mandailing |  | 7 |  | 2.612 |  | 2.612 |  | 94.403 |  |
| Melayu |  | 4 |  | 1.493 |  | 1.493 |  | 95.896 |  |
| Minang |  | 1 |  | 0.373 |  | 0.373 |  | 96.269 |  |
| Nias |  | 1 |  | 0.373 |  | 0.373 |  | 96.642 |  |
| No respon |  | 6 |  | 2.239 |  | 2.239 |  | 98.881 |  |
| Pakistan |  | 1 |  | 0.373 |  | 0.373 |  | 99.254 |  |
| Sunda |  | 1 |  | 0.373 |  | 0.373 |  | 99.627 |  |
| Tionghoa |  | 1 |  | 0.373 |  | 0.373 |  | 100.000 |  |
| Missing |  | 0 |  | 0.000 |  |  |  |  |  |
| Total |  | 268 |  | 100.000 |  |  |  |  |  |
|  | | | | | | | | | |

**Descriptive Statistics**

| **Descriptive Statistics** | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **Mean** | | **Std. Deviation** | | **Minimum** | | **Maximum** | |
| Intrinsic Motivation |  | 33.257 |  | 4.359 |  | 21.000 |  | 42.000 |  |
| Extrinsic Motivation |  | 30.034 |  | 3.943 |  | 17.000 |  | 36.000 |  |
| Postive Affect |  | 32.638 |  | 5.170 |  | 19.000 |  | 47.000 |  |
| Family |  | 22.201 |  | 3.856 |  | 10.000 |  | 28.000 |  |
| Friend |  | 19.772 |  | 4.998 |  | 4.000 |  | 28.000 |  |
|  | | | | | | | | | |

**Descriptive Statistics gender**

| **Descriptive Statistics** | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | |  | | **Mean** | | **Std. Deviation** | | **Minimum** | | **Maximum** | |
| Intrinsic Motivation |  | Men |  | 32.600 |  | 4.992 |  | 21.000 |  | 42.000 |  |
| Intrinsic Motivation |  | Women |  | 33.681 |  | 3.855 |  | 21.000 |  | 42.000 |  |
| Extrinsic Motivation |  | Men |  | 29.686 |  | 4.252 |  | 17.000 |  | 36.000 |  |
| Extrinsic Motivation |  | Women |  | 30.258 |  | 3.726 |  | 17.000 |  | 36.000 |  |
| Postive Affect |  | Men |  | 32.590 |  | 5.431 |  | 20.000 |  | 47.000 |  |
| Postive Affect |  | Women |  | 32.669 |  | 5.011 |  | 19.000 |  | 46.000 |  |
| Family |  | Men |  | 22.295 |  | 3.932 |  | 10.000 |  | 28.000 |  |
| Family |  | Women |  | 22.141 |  | 3.817 |  | 10.000 |  | 28.000 |  |
| Friend |  | Men |  | 20.171 |  | 5.064 |  | 8.000 |  | 28.000 |  |
| Friend |  | Women |  | 19.515 |  | 4.953 |  | 4.000 |  | 28.000 |  |
|  | | | | | | | | | | | |

**Descriptive Statistics class**

| **Descriptive Statistics** | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | |  | | **Mean** | | **Std. Deviation** | | **Minimum** | | **Maximum** | |
| Intrinsic Motivation |  | XI Class |  | 33.328 |  | 4.339 |  | 21.000 |  | 42.000 |  |
| Intrinsic Motivation |  | XII Class |  | 33.183 |  | 4.395 |  | 21.000 |  | 42.000 |  |
| Extrinsic Motivation |  | XI Class |  | 29.620 |  | 3.670 |  | 19.000 |  | 36.000 |  |
| Extrinsic Motivation |  | XII Class |  | 30.466 |  | 4.179 |  | 17.000 |  | 36.000 |  |
| Postive Affect |  | XI Class |  | 32.336 |  | 5.353 |  | 20.000 |  | 47.000 |  |
| Postive Affect |  | XII Class |  | 32.954 |  | 4.972 |  | 19.000 |  | 46.000 |  |
| Family |  | XI Class |  | 22.182 |  | 3.675 |  | 10.000 |  | 28.000 |  |
| Family |  | XII Class |  | 22.221 |  | 4.050 |  | 10.000 |  | 28.000 |  |
| Friend |  | XI Class |  | 20.088 |  | 4.507 |  | 8.000 |  | 28.000 |  |
| Friend |  | XII Class |  | 19.443 |  | 5.462 |  | 4.000 |  | 28.000 |  |
|  | | | | | | | | | | | |

**Descriptive Statistics major**

| **Descriptive Statistics** | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | |  | | **Mean** | | **Std. Deviation** | | **Minimum** | | **Maximum** | |
| Intrinsic Motivation |  | IPA |  | 33.085 |  | 4.405 |  | 21.000 |  | 42.000 |  |
| Intrinsic Motivation |  | IPS |  | 33.534 |  | 4.290 |  | 21.000 |  | 42.000 |  |
| Extrinsic Motivation |  | IPA |  | 29.945 |  | 3.971 |  | 17.000 |  | 36.000 |  |
| Extrinsic Motivation |  | IPS |  | 30.175 |  | 3.912 |  | 17.000 |  | 36.000 |  |
| Postive Affect |  | IPA |  | 32.418 |  | 5.300 |  | 19.000 |  | 47.000 |  |
| Postive Affect |  | IPS |  | 32.990 |  | 4.960 |  | 20.000 |  | 44.000 |  |
| Family |  | IPA |  | 22.279 |  | 3.664 |  | 10.000 |  | 28.000 |  |
| Family |  | IPS |  | 22.078 |  | 4.160 |  | 10.000 |  | 28.000 |  |
| Friend |  | IPA |  | 19.582 |  | 5.138 |  | 4.000 |  | 28.000 |  |
| Friend |  | IPS |  | 20.078 |  | 4.773 |  | 6.000 |  | 28.000 |  |
|  | | | | | | | | | | | |

**Reliability intrinsic**

| **Frequentist Scale Reliability Statistics** | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Estimate** | | **Cronbach's α** | | **Greatest Lower Bound** | | **mean** | | **sd** | |
| Point estimate |  | 0.762 |  | 0.821 |  | 33.257 |  | 4.359 |  |
| 95% CI lower bound |  | 0.715 |  | 0.783 |  | 32.736 |  | 4.019 |  |
| 95% CI upper bound |  | 0.803 |  | 0.869 |  | 33.779 |  | 4.763 |  |
|  | | | | | | | | | |

**Copy of Unidimensional Reliability**

| **Frequentist Scale Reliability Statistics** | | | |
| --- | --- | --- | --- |
| **Estimate** | | **McDonald's ω** | |
| Point estimate |  | 0.544 |  |
| 95% CI lower bound |  | 0.449 |  |
| 95% CI upper bound |  | 0.639 |  |
|  | | | |

**Reliability extrinsic**

| **Frequentist Scale Reliability Statistics** | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Estimate** | | **Cronbach's α** | | **Greatest Lower Bound** | | **mean** | | **sd** | |
| Point estimate |  | 0.707 |  | 0.768 |  | 30.034 |  | 3.943 |  |
| 95% CI lower bound |  | 0.649 |  | 0.725 |  | 29.562 |  | 3.635 |  |
| 95% CI upper bound |  | 0.757 |  | 0.839 |  | 30.506 |  | 4.308 |  |
|  | | | | | | | | | |

**Reliability positive affect**

| **Frequentist Scale Reliability Statistics** | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Estimate** | | **Cronbach's α** | | **Greatest Lower Bound** | | **mean** | | **sd** | |
| Point estimate |  | 0.658 |  | 0.764 |  | 32.638 |  | 5.170 |  |
| 95% CI lower bound |  | 0.592 |  | 0.737 |  | 32.019 |  | 4.766 |  |
| 95% CI upper bound |  | 0.715 |  | 0.829 |  | 33.257 |  | 5.649 |  |
|  | | | | | | | | | |

**Reliability family support**

| **Frequentist Scale Reliability Statistics** | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Estimate** | | **Cronbach's α** | | **Greatest Lower Bound** | | **mean** | | **sd** | |
| Point estimate |  | 0.716 |  | 0.772 |  | 22.201 |  | 3.856 |  |
| 95% CI lower bound |  | 0.656 |  | 0.703 |  | 21.740 |  | 3.554 |  |
| 95% CI upper bound |  | 0.767 |  | 0.831 |  | 22.663 |  | 4.213 |  |
|  | | | | | | | | | |

**Reliability friend support**

| **Frequentist Scale Reliability Statistics** | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Estimate** | | **Cronbach's α** | | **Greatest Lower Bound** | | **mean** | | **sd** | |
| Point estimate |  | 0.854 |  | 0.885 |  | 19.772 |  | 4.998 |  |
| 95% CI lower bound |  | 0.824 |  | 0.850 |  | 19.174 |  | 4.607 |  |
| 95% CI upper bound |  | 0.881 |  | 0.919 |  | 20.371 |  | 5.461 |  |
|  | | | | | | | | | |
| *Note.*   Of the observations, pairwise complete cases were used. | | | | | | | | | |