## CORRECTED

## Supplemental Material

CBE-Life Sciences Education
Hanauer et al.

## Appendix One: The Faculty Self-Reported Assessment Survey (FRAS)

|  | I have never heard this term before | I have heard this term before but do not know what it means | I have heard this term before but am not confident I know what it means | I have heard this term before and have a sense of what it means | I am completely familiar with this term and know what it means |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Assessment program |  |  |  |  |  |
| Student learning outcomes |  |  |  |  |  |
| Student competencies |  |  |  |  |  |
| Formative assessment |  |  |  |  |  |
| Summative assessment |  |  |  |  |  |
| Portfolio |  |  |  |  |  |
| Assessment task |  |  |  |  |  |
| Performance assessment |  |  |  |  |  |
| Authentic assessment |  |  |  |  |  |
| Alternative assessment |  |  |  |  |  |
| Problem Solving Questions |  |  |  |  |  |
| Scenario <br> Questions |  |  |  |  |  |
| Rubrics |  |  |  |  |  |
| Analytic scales |  |  |  |  |  |
| Holistic scales |  |  |  |  |  |
| Assessment validity |  |  |  |  |  |
| Item discrimination |  |  |  |  |  |
| Assessment reliability |  |  |  |  |  |
| Content validity |  |  |  |  |  |
| Item difficulty |  |  |  |  |  |
| Inter-rater reliability |  |  |  |  |  |
| Intra-rater reliability |  |  |  |  |  |
| Test-retest reliability |  |  |  |  |  |
| Internal consistency |  |  |  |  |  |
|  |  |  |  |  |  |
|  | Never | Rarely | Sometimes | Often | All of the Time |
| I have constructed |  |  |  |  |  |


| an assessment <br> plan for my course |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| I have defined student learning outcomes for my course |  |  |  |  |  |
| I have written formative assessments |  |  |  |  |  |
| I have written summative assessments |  |  |  |  |  |
| I have provided feedback to students based on formative assessments |  |  |  |  |  |
| I have provided feedback to students based on summative assessments |  |  |  |  |  |
| I have written a report based on assessment data |  |  |  |  |  |
|  | Strongly <br> Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree |
| I am confident in my ability to define the important components of my course |  |  |  |  |  |
| I am confident in my ability to define my course is terms of student learning outcomes |  |  |  |  |  |
| I am confident in my ability to design formative assessments |  |  |  |  |  |
| I am confident in my ability to evaluate the quality of the assessments I have designed |  |  |  |  |  |
| I am confident in my ability to analyze the formative assessments I have designed |  |  |  |  |  |
| I am confident in |  |  |  |  |  |



|  | Extremely Negative | Negative | Neutral | Positive | Extremely Positive |
| :---: | :---: | :---: | :---: | :---: | :---: |
| How do you feel about using assessment in your course |  |  |  |  |  |
| How do you feel about reporting to faculty on assessment of your class |  |  |  |  |  |
| How do you feel about reporting to administration on assessments of your class |  |  |  |  |  |
| How do you feel about providing feedback to your students based on |  |  |  |  |  |


| formative |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| assessment |  |  |  |  |  |
| How do you feel |  |  |  |  |  |
| about providing |  |  |  |  |  |
| feedback to students |  |  |  |  |  |
| based on summative |  |  |  |  |  |
| assessment |  |  |  |  |  |

Appendix Table A. Statistical indicators for data set corresponding to Figure 1 in Hanauer \& Bauerle, 2014. Mean, Standard Deviation (S.D.) and significance values for faculty responses to Frequency of Assessment queries; median, range (R) and interquartile range (IQR) values are also included for Advanced (n $=11$ ) and Novice ( $\mathrm{n}=17$ ) responses.

| Frequency of Assessment Activity | Mean (S.D.) |  | Mann-Whitney UTest | Two-tailed Sig. | Median (IQR, R) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Advanced | Novice |  |  | Advanced | Novice |
| I have constructed an assessment plan for my course | 4.18 (1.07) | 3.24 (1.3) | 68.5** | 0.01 | $5(2,3)$ | $4(2,4)$ |
| I have defined student learning outcomes for my course | 4.73 (0.46) | 2.29 (1.49) | $21^{* *}$ | 0.001 | $5(1,1)$ | $2(3,4)$ |
| I have written formative assessments | 4.55 (0.68) | 2.59 (1.41) | 48.5** | 0.003 | $5(1,2)$ | $2(2,4)$ |
| I have written summative assessments | 4.55 (0.68) | 2.59 (1.69) | 36.5** | 0.001 | $5(1,2)$ | $2(3,4)$ |
| I have provided feedback to students based on formative assessments | 4.64 (0.67) | 2.88 (1.86) | 48.5** | 0.002 | $5(1,2)$ | $4(4,4)$ |
| I have provided feedback to students based on summative assessments | 4.36 (0.92) | 2.59 (1.66) | 42** | 0.001 | $5(2,2)$ | $3(3,4)$ |
| I have written a report based on assessment data | 3.45 (1.57) | 2.65 (1.8) | 96.5 | 0.3 | $4(3,4)$ | $2(4,4)$ |

Appendix Table B. Statistical indicators for data set corresponding to Figure 1 in Hanauer \& Bauerle, 2014. Mean, Standard Deviation (S.D.) and significance values for faculty responses to Confidence in Assessment Ability queries; median, range $(\mathrm{R})$ and interquartile range $(\mathrm{IQR})$ values are also included for Advanced ( $\mathrm{n}=$ $11)$ and Novice ( $\mathrm{n}=17$ ) responses.

| Confidence in Assessment Ability | Mean (S.D.) |  | Mann-Whitney UTest | Two-tailed Sig. | Median (IQR, R) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Advanced | Novice |  |  | Advanced | Novice |
| to define the important components of my course | 4.91 (0.3) | 2.06 (1.2) | 8** | 0.001 | $5(0,1)$ | $2(2,4)$ |
| to define my course is terms of student learning outcomes | 4.82 (0.4) | 4.47 (0.71) | 114 | 0.5 | $5(0,1)$ | $5(1,2)$ |
| to define my course in terms of student competencies | 4.18 (0.87) | 4.41 (0.71) | 100.5 | 0.2 | $4(1,3)$ | $5(1,2)$ |
| to design formative assessments | 4.45 (0.52) | 2.59 (1.12) | 39.5** | 0.001 | $4(1,1)$ | $2(2,4)$ |
| to design summative assessments | 4.55 (0.52) | 2.76 (1.25) | $24 * *$ | 0.001 | $5(1,1)$ | $3(3,4)$ |
| to evaluate the quality of the assessments I have designed | 4.36 (1.02) | 2.88 (1.36) | 57** | 0.009 | $5(1,3)$ | $3(3,4)$ |
| to analyze the formative assessments I have designed | 4.27 (0.64) | 2.59 (0.43) | 48.5** | 0.002 | $4(1,2)$ | $2(2,4)$ |
| to analyze the summative assessments I have designed | 4.45 (0.52) | 2.88 (1.21) | 34** | 0.001 | $4(1,1)$ | $3(2,4)$ |
| to provide students with relevant feedback based on the formative assessments I have designed. | 4.45 (0.52) | 3.06 (1.29) | 49.5** | 0.003 | $4(1,1)$ | $3(2,4)$ |
| to explain to specific students the outcomes of their summative assessment performance | 4.55 (0.68) | 2.71 (1.26) | $27 * *$ | 0.001 | $5(1,2)$ | $3(3,4)$ |
| to report assessment outcomes to administrators | 4.36 (0.92) | 2.94 (1.39) | 53.5 | 0.005 | $5(1,3)$ | $3(3,4)$ |
| I am confident that my assessments accurately reflect the teaching objectives of my course | 4.36 (0.5) | 2.65 (1.27) | 26** | 0.001 | $4(1,1)$ | $3(3,4)$ |
| Overall I am confident in my abilities to appropriately assess my course and my students | 4.45 (0.52) | 2.82 (1.33) | 43.5** | 0.001 | $4(1,1)$ | $3(2,4)$ |

Appendix Table C. Statistical indicators for data set corresponding to Figure 1 in Hanauer \& Bauerle, 2014. Mean, Standard Deviation (S.D.) and significance values for faculty responses to Attitude toward Assessment queries; median, range ( R ) and interquartile range ( IQR ) values are also included for Advanced ( $\mathrm{n}=11$ ) and Novice ( $\mathrm{n}=17$ ) responses.

| Attitude toward Assessment | Mean (S.D.) |  | Mann-Whitney UTest | Two-tailed Sig. | Median (IQR, R) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Advanced | Novice |  |  | Advanced | Novice |
| using assessment in your course | 4.55 (0.68) | 3.06 (1.34) | 52** | 0.003 | $5(1,2)$ | $3(2,4)$ |
| reporting to faculty on assessments of your class | 4.45 (0.68) | 3.88 (0.85) | 102 | 0.2 | $5(1,2)$ | $4(2,2)$ |
| reporting to administration on assessments of your class | 4.09 (0.94) | 3.76 (0.75) | 114.5 | 0.5 | $4(2,2)$ | $4(1,2)$ |
| providing feedback to your students based on formative assessment | 4.55 (0.68) | 3.12 (1.21) | 41.5** | 0.001 | $5(1,2)$ | $3(2,4)$ |
| providing feedback to students based on summative assessment | 4.64 (0.67) | 3.82 (0.88) | 60.5** | 0.009 | $5(1,2)$ | $4(2,2)$ |

