MBA Assessment Report Form 2019-20

Assessment reports will be completed through Qualtrics to make it easier to share and compile data across campus. The reporting questions are similar to the questions used in the past, but with some additional detail requested in some areas to help us in collecting and analyzing college and institution-wide data on assessment practices. Your assessment reports will be maintained on file electronically on a password secure site (SharePoint). Other individuals on campus will have access to your reports.

Please complete one Assessment Report per learning outcome that you are reporting on.

Please identify your department or program and the name of your assessment liaison:

Department/Program: MBA and MBAO
Assessment Liaison: Michele Gee
Report Prepared by: Suresh Chalasani

1. What learning outcome did you assess for this report? (Reminder - If you assessed multiple learning outcomes this academic year, you should complete a separate report for each outcome.)

The following MBA program level competency and outcome were assessed.

Program-Level Competency C): Engage in continuous improvement to enhance operational performance and promote innovation
Sub-competency: Utilize data analytics and quantitative analysis to support strategic and operational decisions.

It also addresses PLLG5 of the previous MBA assessment plan:
PLLG 5. The students will be able to formulate mathematical models of quantitative business problems and interpret the results so as to be able to handle new and unfamiliar decision making situations.

2. Which of the institution-wide shared learning goals does this outcome connect to?
- Communication (1)
- **Reasoned Judgment (2)**
- Social and Personal Responsibility (3)
- Other (4)

3. Is this the first/initial assessment of the selected learning outcome? (select one):
- Yes
- **No**

If you answered yes, please skip Question 4 and move to Question 5. If you answered no, please move to question 4.

4. Which of the following best describes this assessment report (select one):
- Follow-up assessment related to curricular changes (closing-the-loop).
- Follow-up assessment to address issues with the previous assessment process (e.g. collect more data, redesigned the assessment tool, etc.).
- **Routine assessment of the outcome** ~~to verify previous findings (no curricular changes)~~.

5. What assessment tool(s) or method(s) did you utilize? (Check all that apply)
- Survey (1)
- Standardized exam (2)
- Exam from a course or courses (3)
- **Assignment from a course or courses (4)**
- Student portfolios (5)
- Direct observation of student work or performance – Student Presentations (6)
- Other (7) _____

6. What type of measurement did you utilize?
- **Direct (asking students to demonstrate their learning) (1)**
- Indirect (asking students to self-report their perceived level of learning) (2)
- A combination of the above (3)

7. What delivery mode did you use to collect your data? (Check all that apply)
- **Face to face course(s) (1)**
- **Online course(s) (2)**
- Hybrid course(s) (3)
- Flex Option (Competency Based) course(s) (4)
- Not tied to a course (5)
- Other: Please Specify: _____

8. What was the approximate sample size of this assessment (i.e. number of students assessed)? Fill in your answer here: **137**

For the academic year 2019-20: F2F: 47 Online (Students coded as MBAO): 90 Total: 137

9. Beyond the general details provided above, what student work was collected and how was it evaluated? The purpose of this question is to allow you to elaborate on the previous questions, and present the scope of the assessment and its relationship to student attainment of the specified learning outcome. Please reference the curriculum map, if used.

MBA program was significantly revised and the MBA Online (MBAO) program was launched in Fall 2018. Student performance was measured and compared for the following program level competency and sub-competency.

> Program-Level Competency C): Engage in continuous improvement to enhance operational performance and promote innovation
> Sub-competency: Utilize data analytics and quantitative analysis to support strategic and operational decisions.

Students were evaluated in the above competency in the course MBA 720: Technologies for Business Decision Making. Several assignments were given to students and students were evaluated consistently along three rubric dimensions: Technology Design (measured using Module 2 technical assignment), Using Appropriate Data (measured using Module 6 technical assignment), Making Decisions Based on Data Analysis (measured using Module 4 technical assignment). In the rest of this report, these dimensions will be referred to as "Technology Design," "Using Data," and "Decisions".

10. What were the results of this assessment? Please attach any supporting documents that you feel would be useful to the reviewers.

The following tables show the absolute number of students and percentages of students for each rubric dimension.

F2F STUDENTS - RAW DATA

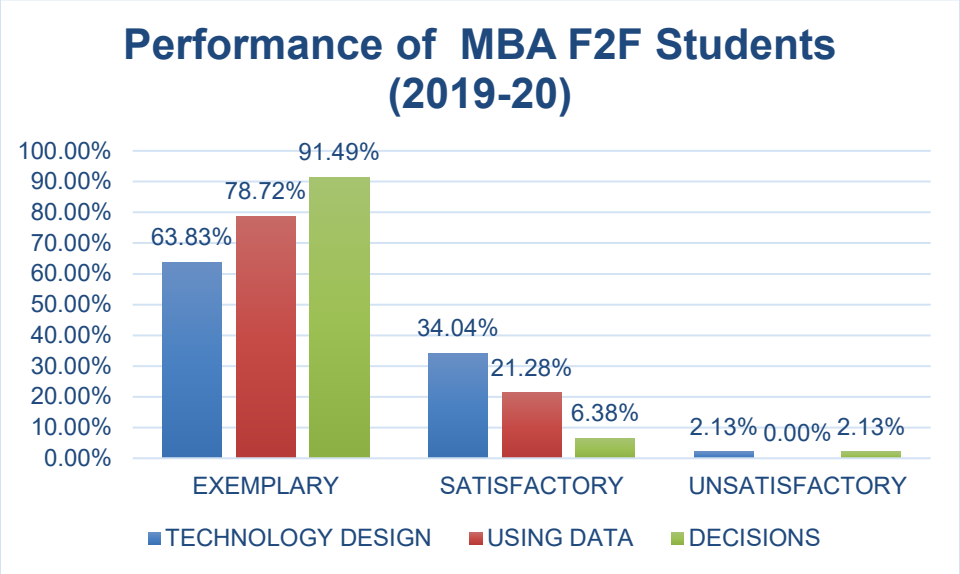
	EXEMPLARY	SATISFACTORY	UNSATISFACTORY	Grand Total
TECHNOLOGY DESIGN	30	16	1	47
USING DATA	37	10	0	47
DECISIONS	43	3	1	47
F2F STUDENTS - PERCENTAGES				
	EXEMPLARY	**SATISFACTORY**	**UNSATISFACTORY**	**Grand Total**
TECHNOLOGY DESIGN	63.83%	34.04%	2.13%	100.00%
USING DATA	78.72%	21.28%	0.00%	100.00%
DECISIONS	91.49%	6.38%	2.13%	100.00%
ONLINE STUDENTS - RAW DATA				
	EXEMPLARY	**SATISFACTORY**	**UNSATISFACTORY**	**Grand Total**
TECHNOLOGY DESIGN	48	30	12	90
USING DATA	72	17	1	90
DECISIONS	75	13	2	90
ONLINE STUDENTS - PERCENTAGES				
	EXEMPLARY	**SATISFACTORY**	**UNSATISFACTORY**	**Grand Total**
TECHNOLOGY DESIGN	53.33%	33.33%	13.33%	100.00%
USING DATA	80.00%	18.89%	1.11%	100.00%
DECISIONS	83.33%	14.44%	2.22%	100.00%

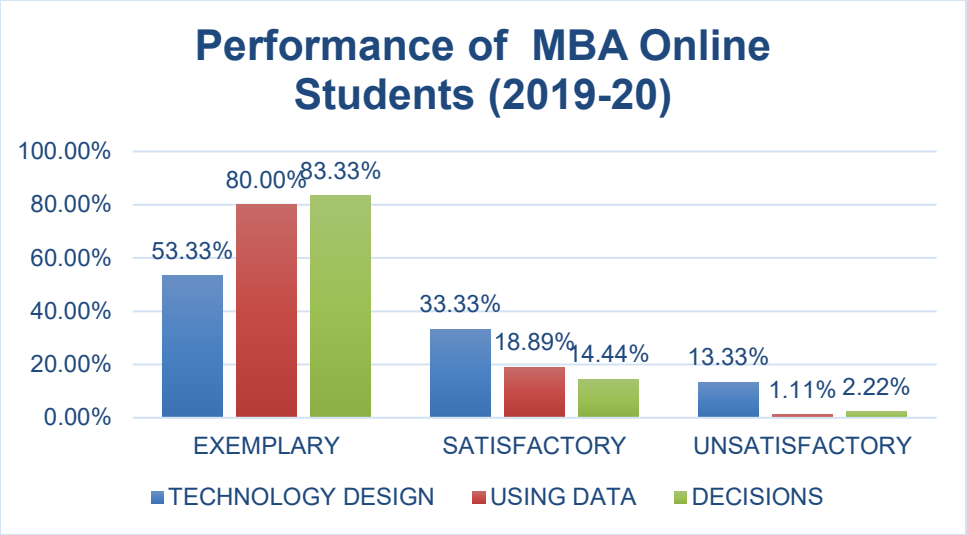
TOTAL STUDENTS - RAW DATA

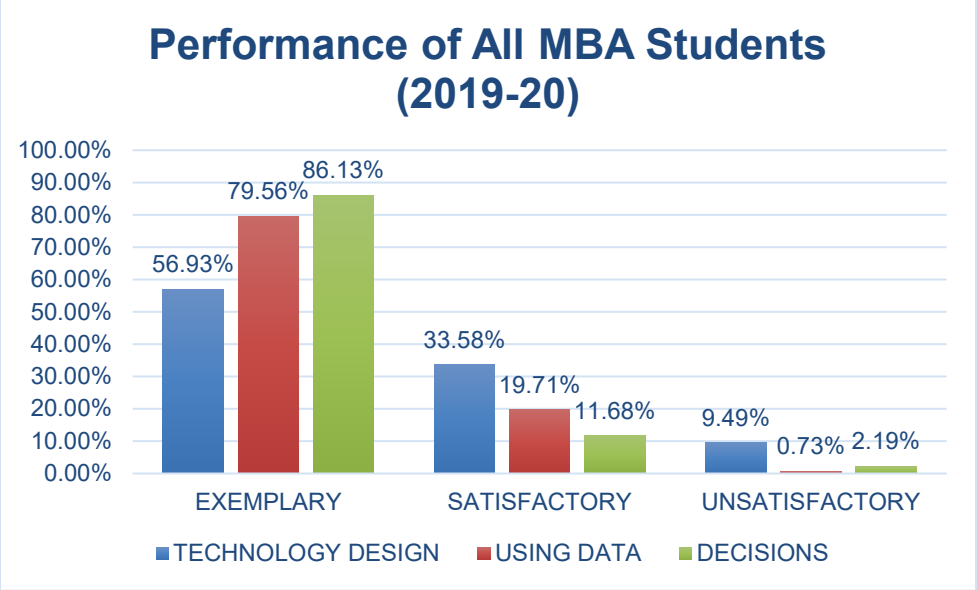
	EXEMPLARY	SATISFACTORY	UNSATISFACTORY	Grand Total
TECHNOLOGY DESIGN	78	46	13	137
USING DATA	109	27	1	137
DECISIONS	118	16	3	137

TOTAL STUDENTS - PERCENTAGES				
	EXEMPLARY	**SATISFACTORY**	**UNSATISFACTORY**	**Grand Total**
TECHNOLOGY DESIGN	56.93%	33.58%	9.49%	100.00%
USING DATA	79.56%	19.71%	0.73%	100.00%
DECISIONS	86.13%	11.68%	2.19%	100.00%

The following graphs depict the percentages pictorially.







Overall student performance has been excellent. For the technology design dimension, about 9.5% of the students are in the unsatisfactory category, and for other dimensions the unsatisfactory rates are less than 3%. This is not surprising because many of the MBA students do not come with any significant technology background. In MBA 720, with a short ramp-up, students are asked to construct databases and utilize spreadsheet techniques; further, module 2 technical assignment which is used to measure "Technology Design" dimension is the most difficult technical assignment in the class. It is noteworthy that the performance of F2F and MBAO students are very similar for almost all rubric dimensions; one exception is that MBAO students performed worse than F2F in the "Technology Design" category. There is no significant reason for this discrepancy. It is noteworthy that in 2018-19 the unsatisfactory

percentages were near 20% for some of the dimensions. In 2019-20, these unsatisfactory rates have reduced significantly. The following might be two reasons why the unsatisfactory rates reduced:

i) The instructor (Prof. Chalasani) conducted more office hours in 2019-20 specifically for this class compared to 2018-19; a total of two hours per week via video were devoted to this class alone (one hour on weekday evenings and another on weekends). In addition, ad-hoc office hours were provided for students who needed help while working on assignments.
ii) After initial grading for module 2 technical assignment ("Technology Design"), students were allowed to revise and resubmit their work based on feedback for additional credit. This practice helped students to master the concepts by reworking portions of the assignment and enabled them obtain a better score.

Overall, there has been a significant improvement in student performance from 2018-19 to 2019-20 with a significant reduction in the unsatisfactory rates.

We also conducted statistical tests (t-Tests assuming unequal variances) to determine whether there are statistically significant differences between the performance of online and F2F students in each of the three dimensions. For the "Using Data" and "Decisions" dimensions, the tests revealed that there are no statistically significant differences. For the "Technology Design" dimension, however, there are statistically significant differences (significance level of 0.05) between F2F and online students, with F2F students performing better in this category. The t-Test results are reproduced below for the "Technology Design" dimension.

t-Test: Two-Sample Assuming Unequal Variances

	F2F	*ONLINE*
Mean	0.904103343	0.834285714
Variance	0.008524278	0.054889016
Observations	47	90
Hypothesized Mean Difference	0	
df	128	
t Stat	2.482043839	
P(T<=t) one-tail	0.007179275	
t Critical one-tail	1.656845226	
P(T<=t) two-tail	0.014358549	
t Critical two-tail	1.97867085	

11. How were other instructors (faculty, lecturers, and adjuncts) involved with the assessment process?

These results will be shared with the MBA committee as well as the department of Business. Our department revised and approved the MBA assessment plan this academic year and the rubric used for this competency was reviewed by the department.

12. As a result of this assessment, were any changes proposed? If yes, please describe and indicate the projected timeline. Please comment on any barriers to implementation.

No changes are planned at this point, since the revised MBA program was implemented for the 2018-19 academic year and the student performance results improved from 2018-19 to 2019-20. These results will continue to be monitored in future and will be used for future curricular/programmatic changes.

Abstract:

For the MBA program, student performance was measured for the following program level competency and sub-competency.

> Program-Level Competency C): Engage in continuous improvement to enhance operational performance and promote innovation
> Sub-competency: Utilize data analytics and quantitative analysis to support strategic and operational decisions.

During 2019-20 AY, all F2F and online students (a total of 137), were evaluated for the above competency in the course MBA 720: Technologies for Business Decision Making. Several assignments were given to students and students were evaluated consistently along three rubric dimensions: Technology Design, Using Appropriate Data, Making Decisions Based on Data Analysis. Overall student performance has been excellent. For the technology design dimension, about 9.5% of the students are in the unsatisfactory category, and for other dimensions the unsatisfactory rates are less than 3%. The performance of F2F and online students are very similar for almost all rubric dimensions; one exception is that online students performed worse than F2F in the "Technology Design" category. It is noteworthy that in 2018-19 the unsatisfactory percentages were near 20% for some of the dimensions. In 2019-20, these unsatisfactory rates have reduced significantly. The following might be two reasons why the unsatisfactory rates reduced from 2018-19 to 2019-20:

i) The instructor (Prof. Chalasani) conducted more office hours in 2019-20 specifically for this class compared to 2018-19; a total of two hours per week via video were devoted to this class alone (one hour on weekday evenings and another on weekends). In addition, ad-hoc office hours were provided for students who needed help while working on assignments.
ii) After initial grading for module 2 technical assignment ("Technology Design"), students were allowed to revise and resubmit their work based on feedback for additional partial

credit. This practice helped students to master the concepts by reworking portions of the assignment and enabled them obtain a better score.

Statistical tests revealed that, for the “Technology Design” dimension, there are statistically significant differences (significance level of 0.05) between F2F and online students, with F2F students performing better in this category. No statistically significant differences were found in the other categories. With technology tools such as instructional videos and web conferencing (for delivering lectures and office hours), the differences between online and F2F course delivery formats are diminishing; the performance differences between these two groups of students will continue to be monitored in future years.