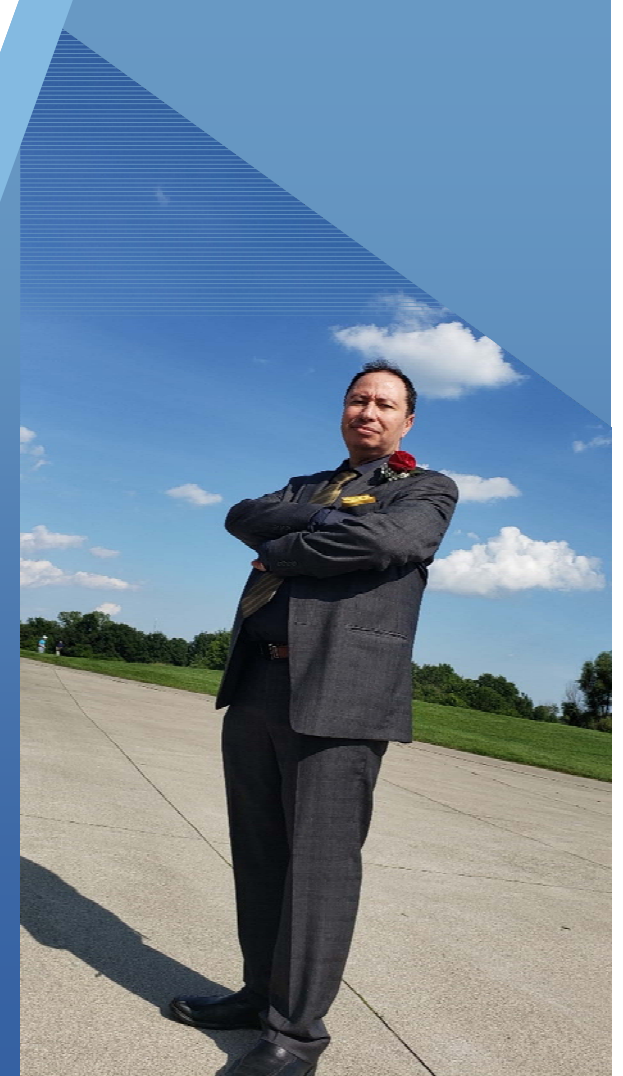تحديات

كيف نستخدم تقنيات ذكاء الاعمال
لدعم اتخاذ قرارات الجودة في التعليم العالي

CHALLENGES

HOW DO BUSINESSES MAKE **EFFICIENT** HIGHER
EDUCATION WITH BUSINESS INTELLIGENCE?

**ALAA HADY
MANAGING PARTNER
ADVANCED MANAGEMENT
SOLUTIONS**

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01 الثورة الصناعية الأولي

02 الثورة الصناعية الثانية

03 الثورة الصناعية الثالثة
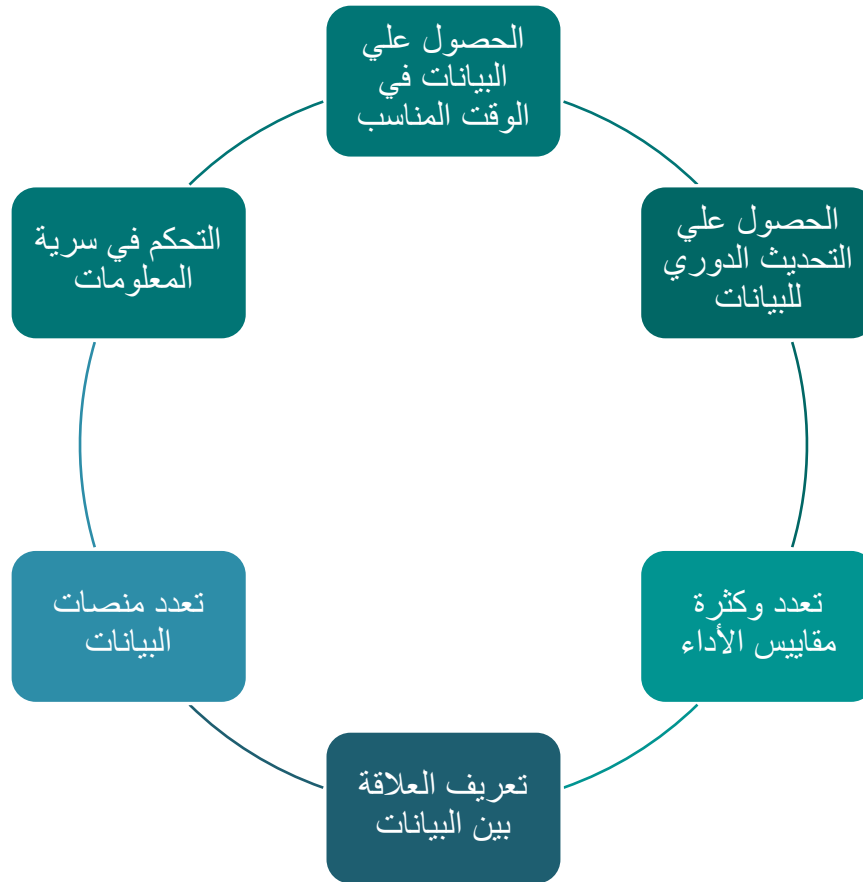
04 ثورة المعلومات

ثَروة

المحاور

- ما هي الصعوبات التي تواجهها في جمع مؤشرات الجودة في التعليم العالي؟

- هل توجد جميع بيانات الجودة في نظام واحد ام عدة أنظمة؟

- كيف نستعمل تقنيات الذكاء الصناعي في تحسين اداء الجودة؟

- كيف نستخدم ادوات ذكاء الاعمال في معرفة أسباب ضعف الجودة؟

تحديات تحليل وتنقية وعرض البيانات

- الحصول علي البيانات في الوقت المناسب
- الحصول علي التحديث الدوري للبيانات
- تعدد وكثرة مقاييس الأداء
- تعريف العلاقة بين البيانات
- تعدد منصات البيانات
- التحكم في سرية المعلومات

التحليل الذكي للأعمال   Business Intelligence

تحليل الماضي وتحسين المستقبل

وضع أطر لإدارة الأداء لتحديد المؤشرات الرئيسية وتتبّعها وتوفير التحليل الذكي للأعمال.

Maturity Model
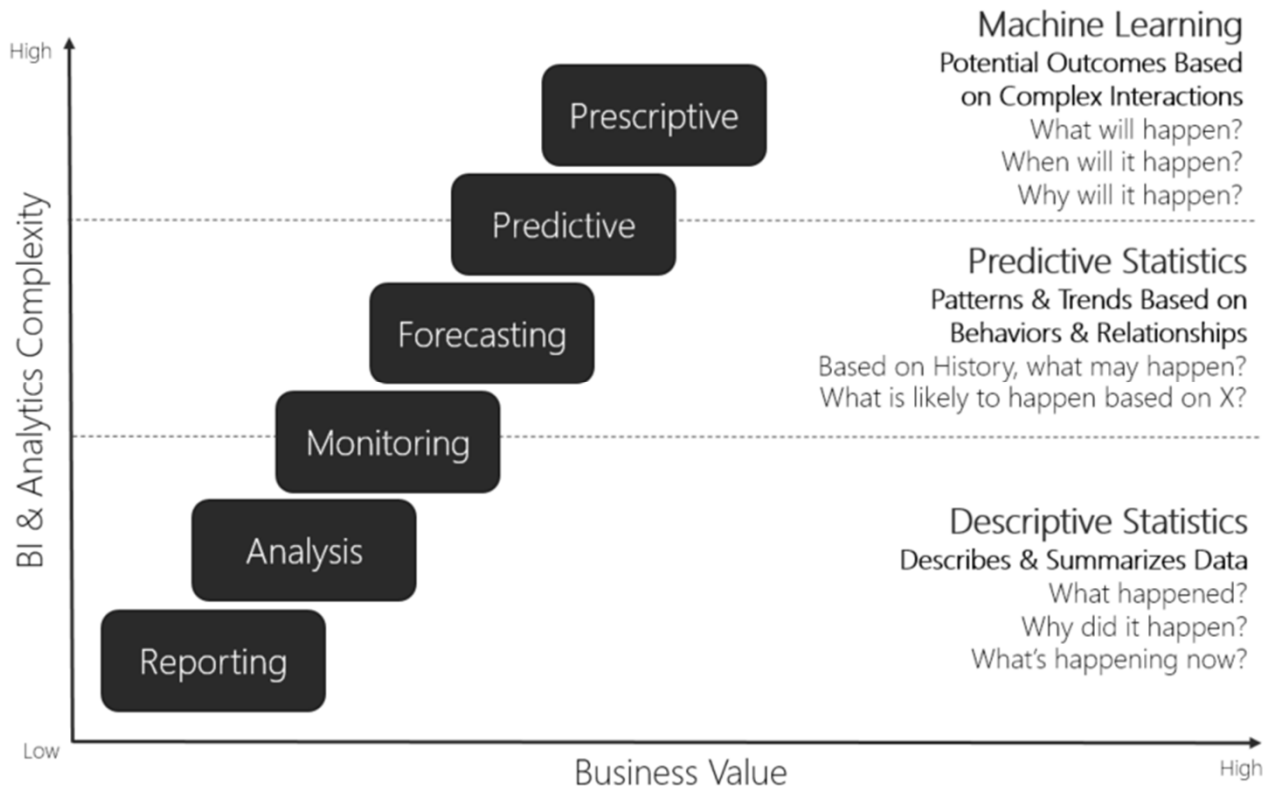
مقاييس الأداء في التعليم العالي

مقاييس مالية
نجاح الطلاب
القبول والتسجيل
أعضاء هيئة التدريس
المرافق والموارد

Key Performance Indicators (KPIs) for Colleges & Universities

Financial
1. Instructional Costs
2. Administrative Costs Per Student
3. Program & Department Budgets
4. Revenue, Grants & Funding
5. Student Financial Aid Percentages
6. Tuition Costs

Student Success
1. Graduation Rates
2. Course Success Rates
3. Persistence Rates
4. Student Engagement
5. Student Outcomes
6. Disproportionate Impact
7. Passing Rates for Licensure Exams

Admissions & Enrollments
1. Transfer Rates
2. Acceptance Rates
3. Student Acceptance by Zip Code
4. Year-Over-Year Enrollment
5. Retention Rates
6. Recruitment Marketing Programs

Faculty & Staff
1. Faculty Workload & Productivity
2. Student-to-Faculty Ratio
3. Faculty & Staff Tenure Rate
4. Faculty Turnover
5. Part-Time vs. Full-Time Faculty
6. Weekly Student Contact Hours

Facilities & Resources
1. Section Fill Rates
2. Classroom Utilization
3. Sustainability
4. On-Campus Housing & Commuters

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MESA COMMUNITY COLLEGE
A MARICOPA COMMUNITY COLLEGE

MCC Key Performance Indicator Dashboard

Course Success KPIs

Course Momentum KPIs

Retention KPIs

Graduation and Transfer KPIs

Enrollment KPIs

Student Learning Outcomes KPIs

https://www.mesacc.edu/about/office-institutional-effectiveness/college-statistics/key-performance-indicator-dashboard

MESA COMMUNITY COLLEGE
A **MARICOPA** COMMUNITY COLLEGE

MCC Key Performance Indicator Dashboard
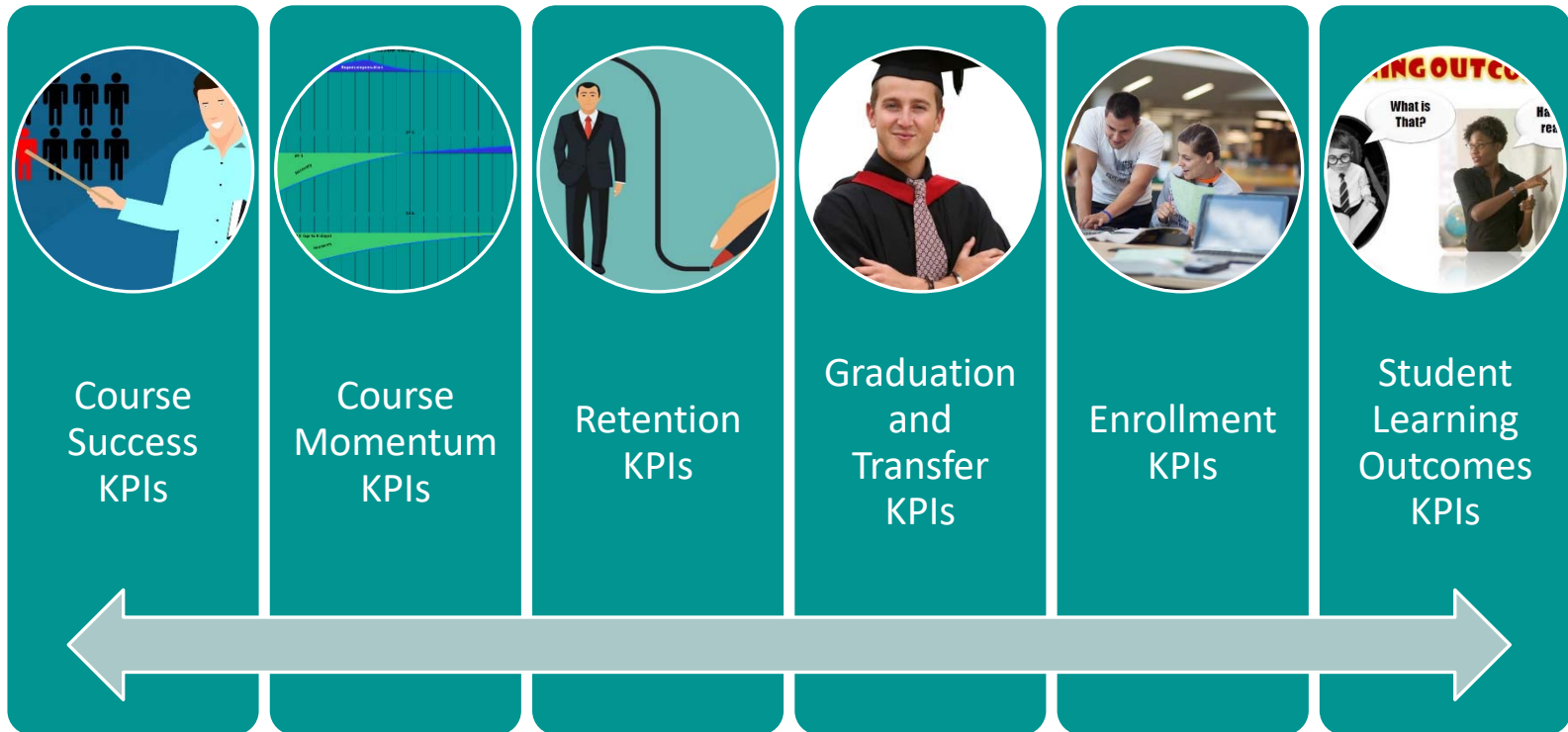
1. Course Success KPIs

Key Performance Indicator	Most Recent Data Point	1-Yr Trend	Long Trend	Maricopa Rank	Peer Rank	NCCBP National Percentile	
1.1 College-Level Course Success	76.2%	1.3%	3.3%	9 of 10	6 of 10	30	✕
1.2 Online Course Success	68.0%	1.7%	6.5%	5 of 10	6 of 10	38	◐
1.3 Developmental Course Success	68.2%	4.3%	8.4%	6 of 10	4 of 10	50	◐

https://www.mesacc.edu/about/office-institutional-effectiveness/college-statistics/key-performance-indicator-dashboard

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A MARICOPA COMMUNITY COLLEGE

MCC Key Performance Indicator Dashboard

2. Retention KPIs

Key Performance Indicator	Most Recent Data Point	1-Yr Trend	Long Trend	Maricopa Rank	Peer Rank	NCCBP National Percentile	
2.1 Fall-to-Spring Retention - Full-time	79.4%	-1.9%	1.7%	9 of 10	8 of 10	40	✗
2.2 Fall-to-Spring Retention - Part-time	57.6%	-0.3%	1.4%	4 of 10	9 of 10	29	◐
2.3 Fall-to-Fall Retention - Full-time	56.6%	1.2%	5.1%	5 of 10	7 of 10	49	◐
2.4 IPEDS Fall-to-Fall Retention - First-time Full-time	64.0%	2.0%	6.0%	NA	13 of 24	NA	✗
2.5 Fall-to-Fall Retention - Part-time	39.4%	1.0%	2.7%	8 of 10	10 of 10	31	✗
2.6 IPEDS Fall-to-Fall Retention - First-time Part-time	42.0%	0.0%	9.0%	NA	19 of 24	NA	✗

https://www.mesacc.edu/about/office-institutional-effectiveness/college-statistics/key-performance-indicator-dashboard

MCC Key Performance Indicator Dashboard

3. Credit Momentum KPIs

Key Performance Indicator	Most Recent Data Point	1-Yr Trend	Long Trend	Maricopa Rank	
3.1 Full-Time Students Earning 12 College-Level Credits in First Year	39.0%	3.0%	4.0%	6 of 10	✗
3.2 Part-Time Students Earning 6 College-Level Credits in First Year	36.0%	1.0%	7.0%	4 of 10	✓
3.3 Full-time Students Earning 30 College-Level Credits in First Year	11.0%	1.0%	2.0%	4 of 10	✓
3.4 Full-time Students Earning 24 College-Level Credits in First Year	33.0%	0.0%	4.0%	6 of 10	✗
3.5 Part-time Students Earning 15 College-Level Credits in First Year	19.0%	2.0%	4.0%	4 of 10	✓
3.6 First-Year Success in College-Level English	52.0%	1.0%	11.0%	5 of 10	✓
3.7 First-Year Success in College-Level Math	31.0%	0.0%	2.0%	8 of 10	✗

https://www.mesacc.edu/about/office-institutional-effectiveness/college-statistics/key-performance-indicator-dashboard

MESA COMMUNITY COLLEGE
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MCC Key Performance Indicator Dashboard

4. Graduation and Transfer KPIs

Key Performance Indicator	Most Recent Data Point	1-Yr Trend	Long Trend	Maricopa Rank	Peer Rank	NCCBP National Percentile	
4.1 IPEDS 3-Year Graduation Rate	16.0%	1.0%	5.0%	NA	19 of 24	NA	✕
4.2 IPEDS 3-Year Transfer Rate	26.0%	-2.0%	-4.0%	NA	8 of 24	NA	✕
4.3 NCCBP 3-Year Graduation Rate - Full-Time	17.5%	-0.4%	2.8%	9 of 10	7 of 10	21	✕
4.4 NCCBP 3-Year Graduation Plus Transfer Rate - Full-Time	29.4%	-0.4%	3.7%	9 of 10	10 of 10	11	✕
4.5 NCCBP 6-Year Graduation Rate - Full-Time	27.1%	0.9%	3.3%	8 of 10	6 of 9	41	✕
4.6 NCCBP 6-Year Graduation Rate - Part-Time	9.5%	0.3%	-1.0%	8 of 10	8 of 9	20	✕
4.7 NCCBP 6-Year Graduation Plus Transfer Rate - Full-Time	46.1%	0.6%	1.5%	5 of 10	6 of 9	46	◑
4.8 NCCBP 6-Year Graduation Plus Transfer Rate - Part-Time	23.5%	-0.2%	-2.2%	8 of 10	7 of 9	31	✕
4.9 Year 2020 Graduate Goal	2,374	5.4%	22.0%	NA	NA	NA	◑

https://www.mesacc.edu/about/office-institutional-effectiveness/college-statistics/key-performance-indicator-dashboard

MESA
COMMUNITY COLLEGE
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MCC Key Performance Indicator Dashboard

5. Enrollment KPIs

Key Performance Indicator	Most Recent Data Point	1-Yr Trend	Long Trend	
5.1 Fiscal Year FTSE Trend	11,439	-5.0%	-28.9%	✗
5.2 Fall Headcount Trend	20,387	-0.2%	-22.8%	◐

6. Student Learning Outcome KPIs

Key Performance Indicator	Most Recent Data Point	1-Yr Trend	Long Trend	
6.1 Adjunct Faculty Participation in MCC 4Cs	14.4%	7.7%	14.2%	✓
6.1 Residential Faculty Participation in MCC 4Cs	44.4%	12.1%	34.7%	◐

https://www.mesacc.edu/about/office-institutional-effectiveness/college-statistics/key-performance-indicator-dashboard
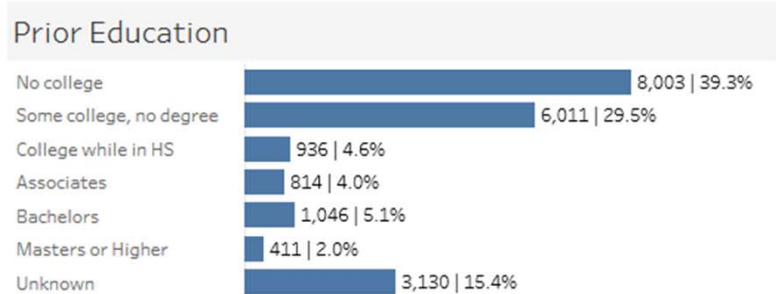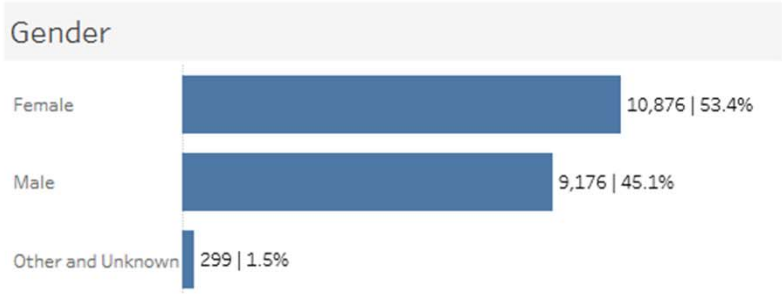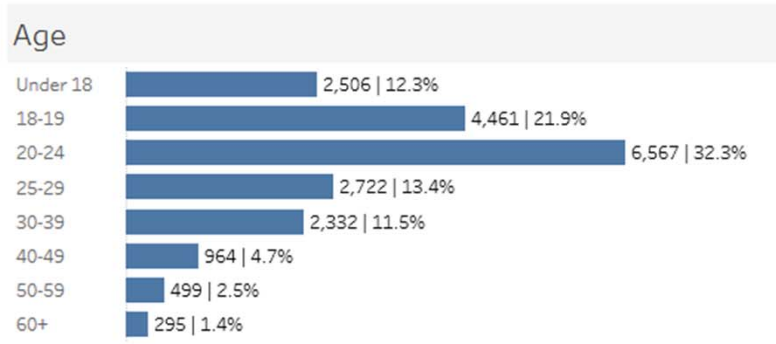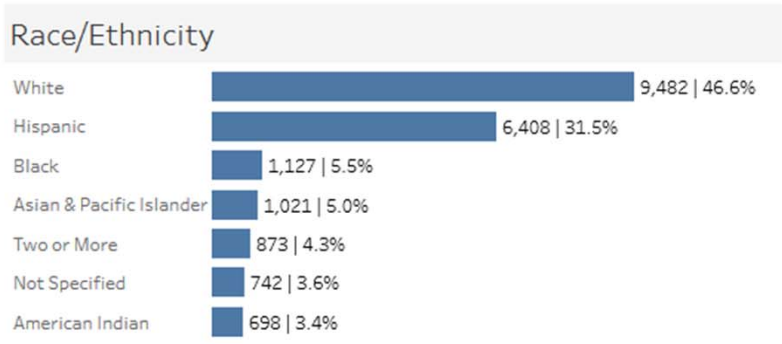
San Bernardino Community College District

TOP 10 COURSES BY COLLEGE

Home Location	Course Title	Number of Students
CHC	Freshman Composition	310
	Probability and Stats	104
	General Psychology	81
	Elements of Public Speaking	65
	College Algebra	63
	Intro to Sociology	47
	Pathway College & Life Success	41
	Interpersonal Communication	27
	American Politics	19
	U.S. Hist: 1865 to Present	4
SBVC	Pathway College & Life Success	1,158
	Freshman Composition	745
	Probability and Stats	314
	College Algebra	275
	General Psychology	196
	Intro to Sociology	99
	U.S. Hist: 1865 to Present	80
	Elements of Public Speaking	70
	American Politics	67
	Interpersonal Communication	50

NUMBER OF STUDENTS IN TRANSFER-LEVEL MATH

	Number of Students
CHC	261
SBVC	700
District	961
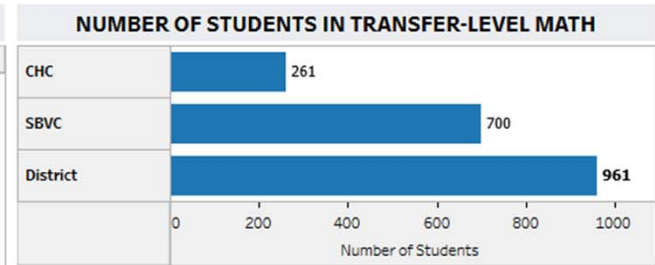
Provides the count of the number of Promise students that enrolled in TL Math. CHC had a total of 261 (60%) students enroll in TL Math while SBVC had 700 (54%). The District total was 961 (55%).

NUMBER OF STUDENTS IN TRANSFER-LEVEL ENGLISH

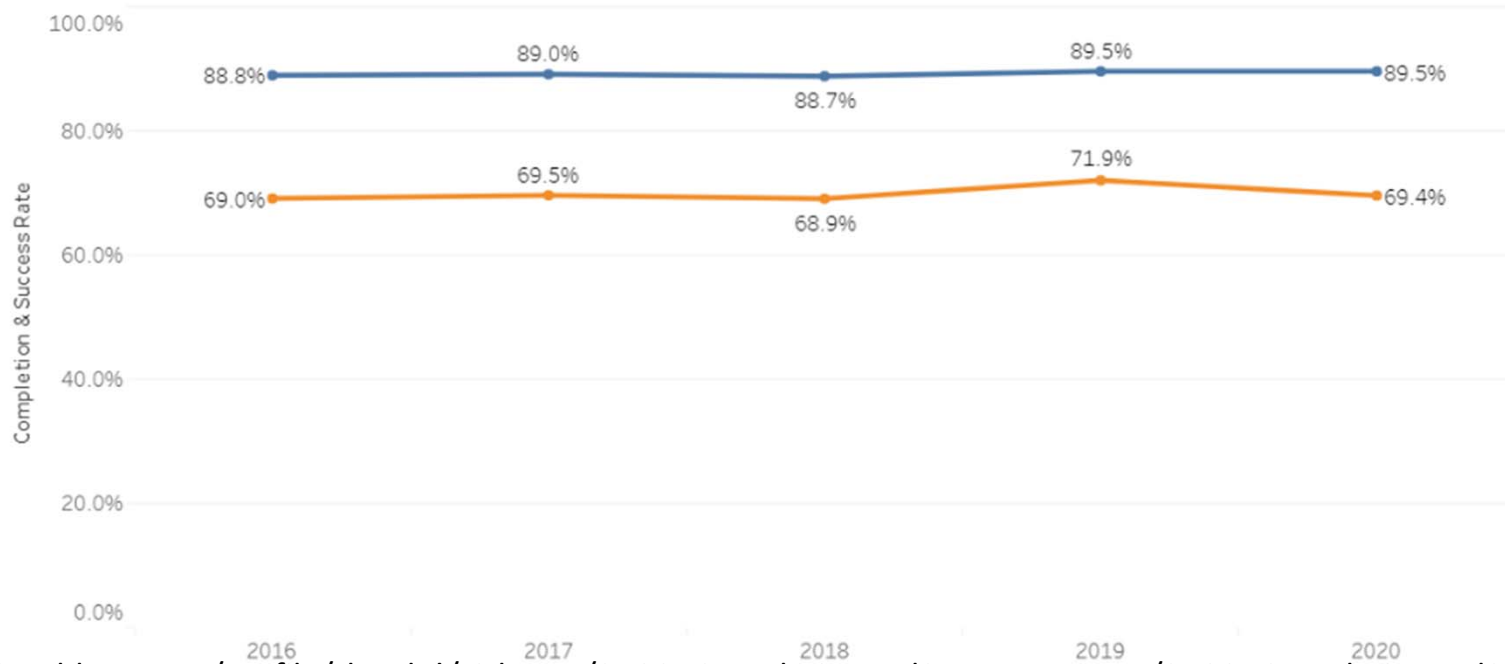|	Number of Students
CHC	343
SBVC	753
District	1,096
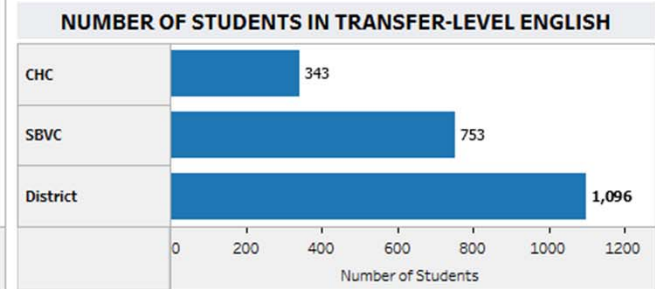
https://public.tableau.com/profile/sbccd#!/vizhome/SBCCDCompletionandSuccessRates_1/SBCCDCompletionandSuccessRates

SAN BERNARDINO
COMMUNITY COLLEGE
DISTRICT

Trend in Completion & Success

https://public.tableau.com/views/HumberCollege-KPIDashboard2016-2017/HumberCollege?:embed=y&:showVizHome=no&:host_url=https%3A%2F%2Fpublic.tableau.com%2F&:tabs=yes&:toolbar=yes&:animate_transition=yes&:display_static_image=no&:display_spinner=no&:display_overlay=yes&:display_count=yes&:loadOrderID=0

KPI - Student Satisfaction Results

Developed and mandated by the Ministry of Advanced Education and Skills Development, the KPI survey measures student levels of satisfaction with learning experiences, facilities, resources and services.

Did You Know...
Humber consistently ranks among the top GTA colleges for satisfaction levels

Did You Know...
Humber recieves over 71,000 applications annually to more than 170 full-time programs

Knowledge and Skills

84%
of students believe that their program is giving them knowledge and skills useful for their future

Did You Know...
Humber develops broadly educated, highly skilled and adaptable citizens to be successful in careers that significantly contribute to the communities they serve - locally, nationally and globally

Learning Experiences

77%
of students believe they are recieving a quality learning experience in their program

Did You Know...
To better meet the needs of our students, Humber opened a new library at the North and Welcome Centre at Lakeshore and continues to enhance student services and develop new eateries

Services

57%
of students believe that Humber provides quality services

Facilities and Resources

72%
of students are satisfied with Humber College's facilities and resources

Humber College opened a new 264,000 sq ft building at the North Campus featuring a student gallery, commons, and a new library

KPI - Graduate and Employer Results

The KPI survey also measures graduate satisfaction, graduate employment rates and employers' satisfaction with Humber's programs.

Did You Know...
There are over 215,000 Humber alumni

Did You Know...
Humber provides over 6,300 bursaries, awards, and scholarships annually

Recommend Humber

95%
of graduates would recommend Humber College to someone else

Did You Know...
79% of Humber programs offer work integrated learning, where students learn from experience in educational and practice settings such as field placements, co-ops, and internships

Graduate Employment

83%
of alumni are employed six months after graduation

Did You Know...
Humber consults with industry and the community each year to ensure our programs give you workplace skills

Employer Satisfaction

91%
of employers believe that Humber alumni are well prepared for work

Graduate Satisfaction

75%
believe that Humber's education is helping them to achieve their goals after graduation

Did You Know...
Graduates of Humber college have access to a wide variety of programs and services exclusive to alumni

Link

18

تطبيقات الذكاء الاصطناعي في التعليم العالي

التدريس

إنشاء أنظمة تستجيب لوتيرة المستخدمين الأفراد وتقدمهم

تقييم تقدم الطلاب وتوصي، أو تقدم تلقائيًا، أجزاء معينة من الدورة التدريبية للطلاب لمراجعتها أو موارد إضافية للتشاور معها

دعم وتوجيه الطلاب

تستخدم المدارس التعلم الآلي في الطلاب. تساعد بعض التطبيقات الطلاب على

جدولة تحميل الدورة التدريبية تلقائيًا

توصي بالدورات والتخصصات والمسارات الوظيفية

المساعدة المالية في الوقت المناسب

تحديد الطلاب المعرضين للفشل أو الانقطاع عن الدراسة

الاستخدام المؤسسي

التسويق للبرامج

تقدير حجم الفصل

تخطيط المناهج

تخصيص الموارد مثل المساعدات المالية والتسهيلات

تطبيقات الذكاء الاصطناعي في التعليم العالي

الاستخدام المؤسسي	دعم وتوجيه الطلاب	التدريس
التسويق للبرامج	تستخدم المدارس التعلم الآلي في الطلاب. تساعد بعض التطبيقات الطلاب على	إنشاء أنظمة تستجيب لوتيرة المستخدمين الأفراد وتقدمهم
تقدير حجم الفصل	جدولة تحميل الدورة التدريبية تلقائيًا	تقييم تقدم الطلاب وتوصي، أو تقدم تلقائيًا، أجزاء معينة من الدورة التدريبية للطلاب لمراجعتها أو موارد إضافية للتشاور معها
تخطيط المناهج	توصي بالدورات والتخصصات والمسارات الوظيفية	
تخصيص الموارد مثل المساعدات المالية والتسهيلات	المساعدة المالية في الوقت المناسب	
	تحديد الطلاب المعرضين للفشل أو الانقطاع عن الدراسة	

5 طرق للذكاء الاصطناعي قد تؤثر على القبول في التعليم العالي والاحتفاظ به

ستتغير ممارسات تجنيد الطلاب المحليين والدوليين.

ستصبح عملية القبول في الكلية أسرع وأكثر تخصيصًا.

ستكون جهود الاحتفاظ بالطلاب أكثر استباقية من رد الفعل.

ستحصل فرق القبول على المساعدة في معالجة "ذوبان الصيف".

ستتحسن النتيجة النهائية للكلية وقيمة سمعتها.

Business Intelligence   أشهر برامج التحليل الذكي للأعمال

SAP Business Intelligence	Zoho Analytics
Oracle BI	Sisense
Microsoft Power BI	Looker
MicroStrategy	Clear Analytics
Datapine	Tableau
SAS Business Intelligence	Domo
Yellowfin BI	IBM Cognos Analytics
QlikSense	

تجربة عملية

How to start

Deployment

CEO	CEO	
Top management	CSS	COO
Managers	Quality Manager · Manager	Department Manager · Department Manager
Sup and Staff	Unit head · Staff · Unit head · Staff	Unit head · Staff
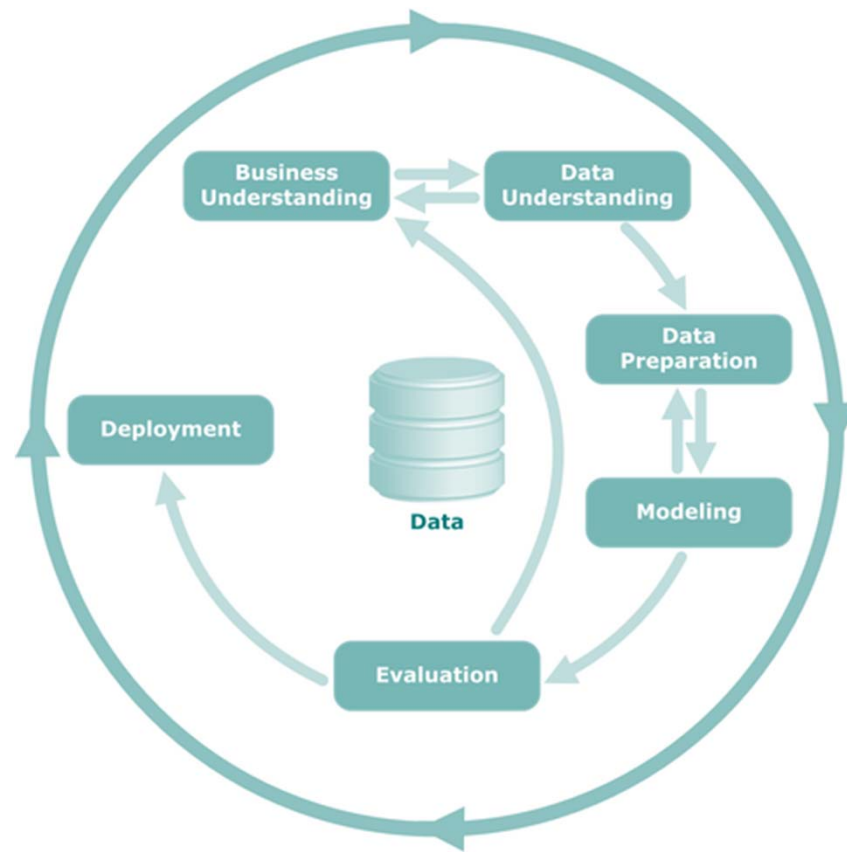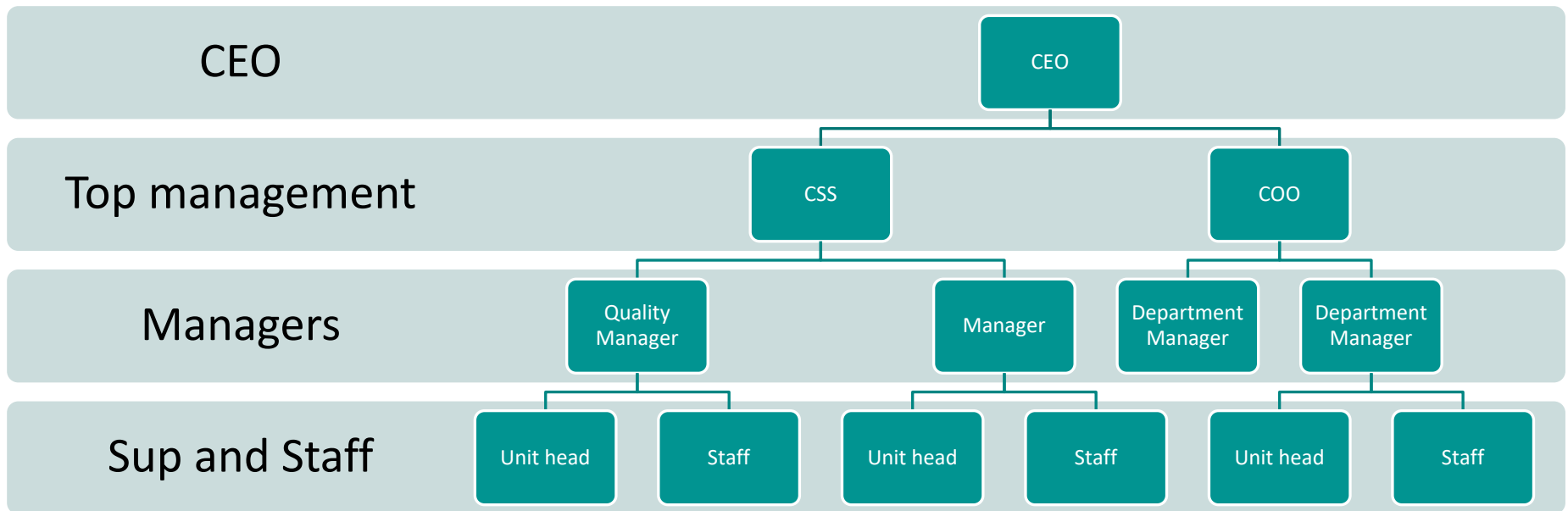
RACI Example

Actions for the Focus Area	Roles and Responsibilities						
	Rita	Bob	Sue	Tom	Dick	Harry	Sally
Strategic Plan	R+A	I	C/I	I	I	I	I
Leadership Development	R+A	C	C/I	I	I	I	I
External Masterclasses	R+A	I	C/I	C/I	I	I	I
Commissioning external consultants	R+A	C	I	C/I	I	I	I
Strategic Measurement	R+A	I	-	I	I	I	I
Professional Development	R+A	C	-	I	I	I	I/C
Change Agent Programme	R+A	I	C/I	I	I	I	I

Machine Learning

29
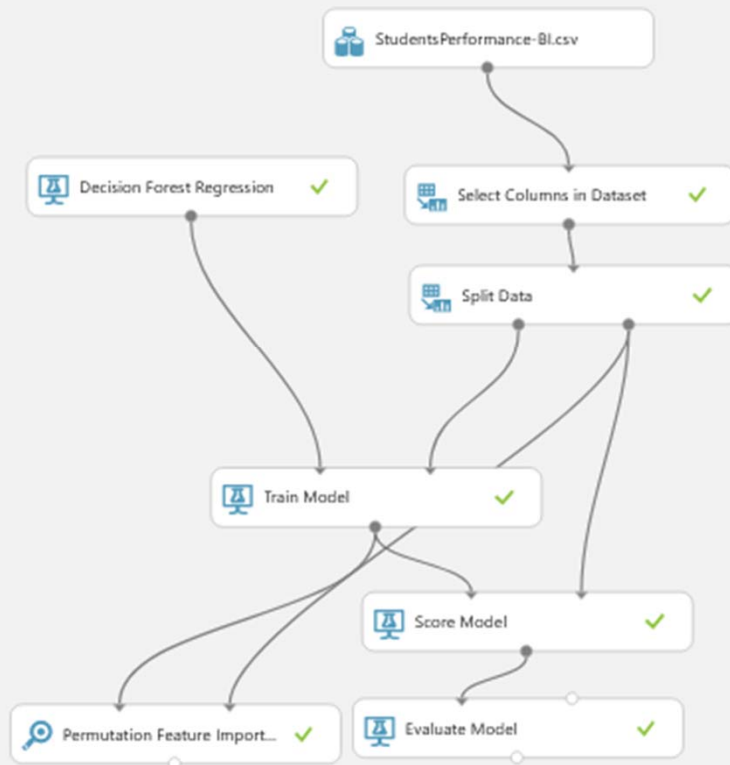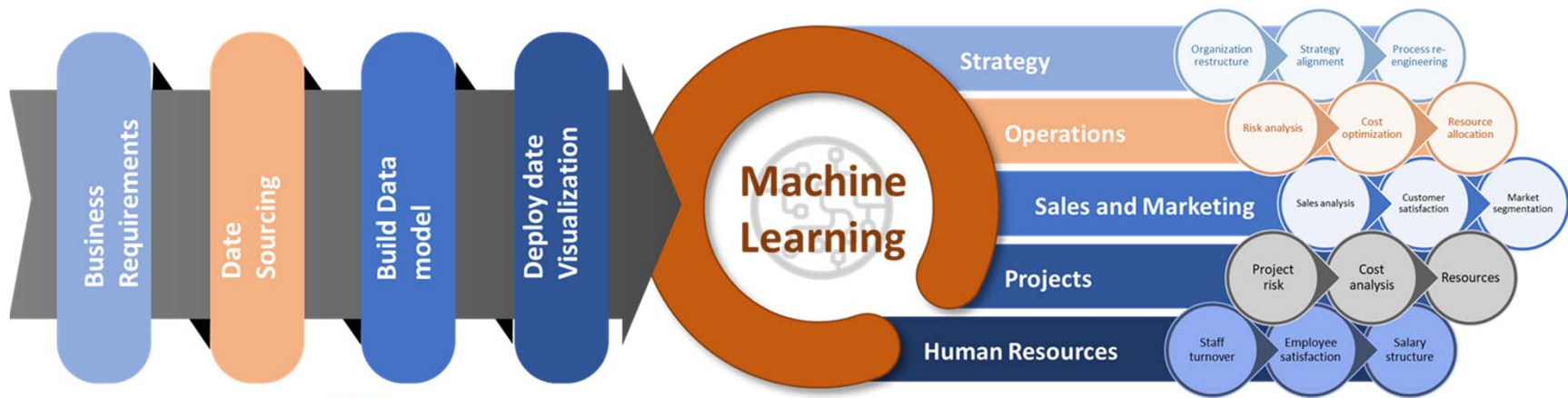
Information wealth model

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+1-(519) 200-5565

Website

https://www.amsol.ca/high-education-bi/

م. علاء عبد الهادي
Managing Partner Advanced Management Solutions

علاء عبد الهادي استشاري في شركه الحلول المتقدمة للإدارة بكندا

عمل م. علاء في استشارات تطوير الاستراتيجيات واعاده الهيكلة وتطوير الموارد البشرية وحلول المعلومات وتحليل البيانات في عدد من شركات البترول والهيئات الحكومية والشركات الخاصة والشركات الهندسية بالإضافة الي الجمعيات غير الهادفة للربح كما وعمل في عدد من الشركات الاستشارية العالمية

قام المهندس علاء بتقيم الشركات في جائزه دبي للموارد البشرية

حصل م. علاء على ماجستير في اداره الاعمال من جامعه ماسترخت في هولندا و شهاده متخصص في الموارد البشرية من جامعه مينيسوتا وشهاده متخصص في تحليل البيانات من جامعه دوق وكان المهندس علاء عضو مجلس اداره في جمعيه العربية لإدارة الموارد البشرية لمده ثمان سنوات بالإضافة الى عضويته في العديد من الجمعيات المتخصصة

ALAA ABDULHADY
Managing Partner Advanced Management Solutions

PROFESSIONAL EXPERIENCE

Developed short and long-term strategy, initiatives and key performance indicators for organization structure for petrochemical construction company resulting in new strategy

Assessed and coached leaders on organization in manufacturing, construction and publishing industries

Developed organization structure for Makkah high commission authority

More than 30 years in managing, developing and implementing application at various industries include Financial, Military, Oil and Gas, Human Resources, Government and Engineering.

Certification

Certified IBM Artificial intelligence engineer

Certified IBM Artificial intelligence professional engineer

Certified Strategic Planning and Performance Management Expert (SPPME) from Performance Institute at Arlington, VA

EDUCATION

Advanced Business Analytics Specialization from *University of Colorado Boulder*

Human Resources management from *Carlson School of Management at University of Minnesota*

Data Analysis and Presentation Skills: the PwC Approach from *PWC*

Business Metrics for Data-Driven Companies from *Duke university*

Masters of Business Administration with Distinction – Strategy Management from *Maastricht School of Management, Maastricht, Netherlands*

Engineering Bachelor's Degree from *Alexandria University, Faculty of Engineering, Alexandria, Egypt*

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