



Open Pathway Quality Initiative Report

Institutional Template

The enclosed Quality Initiative Report represents the work that the institution has undertaken to fulfill the quality improvement requirements of the Open Pathway.

Signature of Institution's President or Chancellor

5/31/2022

Date

Dr. Steven D. Schulz, President

Printed/Typed Name and Title

North Iowa Area Community College

Name of Institution

Mason City, Iowa

City and State

The institution uses the template below to complete its Quality Initiative Report. The institution may include a report it has prepared for other purposes if it addresses many of the questions below and replaces portions of the narrative in the template. This template may be used both for reports on initiatives that have been completed and for initiatives that will continue and for which this report serves as a milestone of accomplishments thus far. The complete report should be no more than 6,000 words.

The report must be submitted by June 1 of Year 9.

Submit the report as a PDF file at hlcommission.org/upload. Select "Pathways/Quality Initiatives" from the list of submission options to ensure the institution's materials are sent to the correct HLC staff member. The file name of the report should follow this format: QIReport[InstitutionName] [State].pdf (e.g., QIProposalNoNameUniversityMN.pdf). The file name must include the institution's name (or an identifiable portion thereof) and state.

Date: May 31, 2022

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Report Categories

Overview of the Quality Initiative

1. Provide a one-page executive summary that describes the Quality Initiative, summarizes what was accomplished and explains any changes made to the initiative over the time period.

Brief Description: The purpose of the Quality Initiative and ensuing work aims to focus on addressing the efficiency of data work systems. Current systems can be characterized as data rich with insufficient technology tools and processes, which has led to inefficient workflows, manual processes, inadequate information flow, and a general inability to retrieve data in a timely manner to make data-driven decisions. The impact of cumbersome systems yielded difficult to understand results, leaving faculty members short of information presented in a comprehensible form. This has been clearly evident as expressed in the frustrations of faculty members as they prepare for Program Evaluation. Technology inadequacies impact the student experience during onboarding, advising, and academic planning; impact faculty and staff by creating information silos and communication barriers; and cause staff to use manual processes for workflows that might otherwise be automated. There is a lack of student onboarding service integration, data collection and no ability to prepare predictive analytics. The project has focused on the development of a cross-institutional data/research team to develop data goals, identify institutional requirements for data products, and develop a rubric for/adoption process of an institutional data analytics software to: 1) integrate current systems that do not “talk” to each other; 2) automate data processes; and 3) regulate input and output of data across institution. To accomplish the launch of this work, a Data Team was created which was responsible for crafting foundational pieces of a data dictionary/guidebook, data standards, identification/adoption of a decision or problem-solving model, inventory of current research and assessment of future needs and overseeing data training.

Accomplishments: While there were not specific and stated changes to the initiative, it has continued to evolve into what will prove to be an impactful project spanning broadly across the College. The initial proposal timeline was developed in anticipation of receiving a Title III Grant. When the College learned in September 2021 that it missed funding by .33 points, plans were reassessed and evaluated which proved to be advantageous. With the announcement we would not receive the Title III funding, the College was informed we could be assured a fund-down award in September 2022. In the meantime, the work of the QI Data Team continued to evolve. Initial goals developed by the Team:

1. Establish a cross-institutional data/research team.
2. Create a QI engagement strategy.
3. Develop a communications plan.
4. Develop data goals.
5. Create a data dictionary/guidebook.
6. Revise and develop new data standards.
7. Identify institutional requirements for data products.
8. Develop a rubric/selection process for an institutional data analytics software.
9. Select and purchase new data platform.
10. Identify/adopt a problem-solving model to be used for identifying opportunities for growth through regular data assessment processes.
11. Develop regular data training schedule and training.

Scope and Impact of the Initiative

2. Explain in more detail what was accomplished in the Quality Initiative in relation to its purposes and goals. (If applicable, explain the initiative's hypotheses and findings.)

Purpose: To move NIACC from a data rich, but paralyzed environment to a data informed culture with the training and tools to use data to make decisions for continuous engagement, communication, reporting and improvement.

Goals:

Establish a cross-institutional data/research team.

Identify institutional requirements for data products.

Develop a rubric/selection process for an institutional data analytics software to 1) integrate current system that do not "talk" to each other, 2) automate data processes, 3) regulate input and output of data across the institution.

Create a data dictionary/guidebook.

Identify/adopt a problem-solving model to be used for identifying opportunities for growth through regular data assessment processes.

Develop regular data training schedule and training.

Falling just short of receiving a Title III Grant in September, 2021, the goals which were aligned with the timeline drafted in the initial QI Proposal needed to be adjusted accordingly. In retrospect, not receiving the Title III Grant initially, provided an opportunity for this QI Data Team to form and expand on the scope of the initial project which focused on developing a system or purchasing a product which aligned student services so systems within could "talk" to each other. The resulting conclusions led the College to purchase not only Navigate (a student services collaborative software product), but also Edify (a data intake software which created the avenue for multiple systems to report together in one repository reporting feature).

Cross-Institutional Data/Research Team

As the QI Team began to work through goals they were initially intent on devising a new cross-institutional data/research team. As the QI Team began to assess the responsibilities of a proposed Data Governance Committee, those duties aligned with some expansion, to those of the existing CORE Team. CORE holds responsibility for setting data standards, policy, and communication. Any system or programming changes are reported through CORE. Rather than create a new committee, the QI Team recommended that the CORE Team expand its scope of work and membership.

Identify institutional requirements for data products

This work was accomplished by the members of the QI Team, familiar with the system requirements who also serve in an Enterprise Applications, and information technology infrastructure capacity. The QI Team needed the specialized knowledge of specific individuals to gain understanding to the compatibility of program systems.

Develop a rubric/selection process for an institutional data analytics software

The QI Data Team developed a software selection tool for use in evaluating the strengths and shortcomings of potential analytic software purchased by the College. The criteria included: Price-Performance Ratio, Reference Checks, Customer Support, Functionality, Ease of Report Building/Data Retrieval, Query Speed, Data Handling Capacity, Data Import Bundling Capacity, Deployment Assistance/Support User access, Advanced Analytics Capability, Predictive Analytics Capability. Assessment categories included Exemplary, Proficient, and Inadequate.

The College did secure a contract with EAB for the education data platform, Edify. Edify will satisfy all requirements and features sought after in a software analytic tool. The Edify data hub configuration is comprised of a comprehensive data integration, data governance, and data warehousing technology in a secure, extensible, and cloud-based format that supports users and managers of data and technology applications. Within Edify capabilities include:

- Automated Data Import Processes
- Inbound Source System Connectors
- Higher Ed Data Modeling
- Cloud-based Relational Database
- API Library
- SQL-based Metadata management and Data Querying
- Outbound Technology Connectors

There is a suite of services available to all users. For NIACC any individual who wishes to use the tools available, who will not already be expected to in the course of their duties, will be granted access after the completion of training. NIACC secured an unlimited number of licenses with its contract with EAB. Self-service features include:

Construct: A desktop application providing a no-code, drag-and drop interface to automate data preparation and data validation processes.

Predict: A desktop application enabling users to explore statistical relationship between variables in a historic data set and create and validate predictive models using linear and logarithmic regression.

Bridge: A web-based application enabling data exploration and visualization tool for users to build reports and dashboards.

Identify/adopt a problem-solving model

The problem-solving model will be developed in conjunction with the software implementation and as we begin usage. As problems identify themselves, step-by-step solutions will be written and included in the data standards document. This work is in process.

Develop regular data training schedule and training

The work to develop the regular data training schedule and training is the responsibility of CORE. Once the software implementation is complete the CORE Team will create the initial training rollout plan.

Engaging in this QI, NIACC is well on the way to satisfying a noted strategic issue in the August 2014 AQIP Quality Highlights Report, writing that the College held a strong commitment to data collection, but lacked a centralized location for data that would allow for meaningful institutional comparisons and decision making. The purpose and goals of this QI will soon be realized with the commitment to Edify and its features highlighted above to address stated concerns.

3. Evaluate the impact of the initiative, including any changes in processes, policies, technology, curricula, programs, student learning and success that are now in place in consequence of the initiative.

The inefficiencies of manual processes to onboard students became apparent as the College implemented Guided Pathways. Processes had been created to meet the needs at the time, but

were not developed in an integrated manner between student development departments or academic affairs. Presently there is no method of predictive analytics to aid on placement within a Guided Pathway. Technology systems for data retrieval are difficult to navigate, leaving faculty to rely on others to retrieve information which is generally presented as a great deal of data with little usable information. Those obstacles identified in the Guided Pathways work led to the Title III Grant application looking for a comprehensive student success platform. Navigate software was identified as a fitting tool which would provide comprehensive case management, communication, workflow capabilities and analytics in a secure and cloud-based format. Furthermore, the software links staff, faculty, advisors, and students in a connected and coordinated network, to improve support and proactive case management with capabilities of a student success predictive modeling and historical trend analysis. Reviewing this work, it also became apparent the desperate need for data analytic software therefore this QI was created.

The impact of this QI project is largely unknown at this time as the College is at the beginning of the software implementation phase. The pieces which have been created, primarily the updated data standards will continue to be revised as processes are developed to meet updated requirements. Once the analytic software (Edify) is fully operational there will be significant changes in processing of and access to data. The College will have predictive analytics for the first time to be used to aid in placement of Guided Pathways. Once richer student outcome data is available to faculty for assessment and program review it is suspected there will be some changes to curriculum, programs, the sequencing of courses or student assistance.

4. Explain any tools, data or other information that resulted from the work of the initiative.

Communications and Engagement Plan: The QI Team identified a list of data topics to be presently and continually addressed by the ongoing Data Governance Committee (CORE), what audiences should receive updates on specific topics, how those messages would be delivered, and with what frequency; the persons responsible for distributing the information, and feedback mechanisms to circle the continuous quality loop. All of these elements are contained in one easy to read and reference table. This communication plan could serve as a communication template for other projects within the College.

Data Guidebook: This Guidebook, now established, will be maintained by CORE. This resource is designed to help faculty and staff understand the data terms as they are used at the College and various reporting agencies. This will prove particularly helpful once more faculty and staff have readily accessible user-friendly technology tools to run their own queries. Where terms are often used interchangeably, i.e. persistence and retention, this guidebook will help alleviate confusion and frustration surrounding terminology which may cloud getting to meaningful work.

Data Standards: When NIACC first become a Datatel college approximately 15 years ago, data standards were established on how to search for records, add new data, and records and data maintenance. The work of the CORE Team has gravitated away from data standard upkeep duties to some degree; this QI project provided the impetus to put all current standards on a review cycle and look for gaps to develop new standards. All current standards have now been updated and posted on *TrojanHome*, the College communication portal. As work will continue as Navigate and Edify move to full implementation and new standards developed. A regular and reoccurring cycle of review has now been added to the CORE Team body of work.

Analytic Software Selection Rubric: As mentioned previously in Section 2, the QI Data Team developed a software selection tool for use in evaluating the strengths and shortcomings of potential analytic software purchased by the College. This tool in an easy to use table format may have some carry over benefit to other software purchases made at a later date.

5. Describe the biggest challenges and opportunities encountered in implementing the initiative.

The challenges experienced are not specific to this particular initiative or much different from recent readings of factors impacting higher education. Enrollment declines and situating into the new post-COVID normal has taken its toll on resources and personal energy.

Budget: The majority of the College's budget revenue is derived from student tuition. Since 2011, NIACC has seen a decline in enrollment consequently effecting revenue. Commitment to fund this initiative was secured through the course of the Guided Pathways work. In order for Guided Pathways to be optimized student services systems and technological enhancements were necessary. True to the lowan reputation of trying to "make do with what we have," the College has long relied on the ingenuity of individuals to develop solutions in order to make the current system work. The Guided Pathways work revealed that the College had 'MacGyvered' itself into a system which was simply dysfunctional. From this work the College realized further investment must be made. The initial funding plan relied in part on a Title III Grant award. When that did not come to fruition with the September 2021 announcement, new plans for funding needed to be secured. This has delayed the implementation timeline, but plans are proceeding.

Time: The QI Initiative work itself has not proven to be a heavy lift. The work has been divided out to several individuals, QI sub-groups and to the CORE Team. The goals and tasks as outlined in the QI Proposal were not necessarily daunting, but there were foundational pieces that may have become lost if not specifically accounted for. The ongoing work of implementing the QI project analytic software (Edify) on the heels of implementation of the Student Success Collaborative (Navigate) a comprehensive student success management technology platform, and an upgrade to *Colleague Informer 5* poses threats to continued time constraints. The College's student development and IT teams will be moving at a constant and fast pace from the beginning of this this QI project through April 2023 when both Edify and Navigate will be in full implementation.

Workloads/Burnout: In conjunction with the worries expressed above the management of the additional load while continuing current job functions will call for skillful time management. Over the past year administration has paid particular attention to the capacities of our people post COVID. NIACC employees in general have always been willing to go beyond what is necessary for our students and each other, never resting and always striving to be better. While the willingness remains, it does seem to come with less energy and enthusiasm since pre-COVID. Like other colleges NIACC is struggling to fill some critical support positions. This also means that others are taking on additional work.

Excitement for improved/enhanced services and student outcome: Regardless of any obstacles or challenges the excitement for this work outweighs any shortcomings. Focusing on the QI project and the completion of the goals has provided momentum to continue to move forward. The short turnaround of this project and making manageable and achievable goals demonstrated to the College community this work would really happen with a plan of action to see it come to fruition. Faculty are thrilled to have access to usable and timely data, both current and historical. This provides benefits not only for assessment purposes within their own courses, but also to create the predictive analytics for appropriate placement in the Guided Pathway. Student Services personnel are excited that programs will be integrated through Edify for results analysis, providing better information to academically advise students.

Better student experience: The use of an analytic software program which crosses all programs will provide more accurate data, which will improve assessment and program review which should in turn lead to increased persistence and completion. It will be difficult to isolate for independent variables to know the impact of this initiative alone, as the College is also implementing Guided Pathways and added multiple measures for placement, but credible work begins with an analytical tool that faculty trust.

Commitment to and Engagement in the Quality Initiative

6. Describe the individuals and groups involved at stages throughout the initiative and their perceptions of its worth and impact.

This initiative primarily impacts administrative, academic, and student development services of the College. Representatives from all of these areas held varying degrees of involvement in the project. The concept of this initiative originated in President's Council (PC) comprised of: President, Vice President of Academic Affairs and Student Success, Vice President of Student Development, Vice President of Administrative Services, Vice President of Organizational Development and Human Resources (VPODHR), Chief Information Officer, Director of Marketing and Community Relations, Director of Institutional Advancement, Dean of Continuing Education, and the Director of the John Pappajohn Entrepreneurial Center. PC created the initial list of proposed members of the QI Team. The VPODHR serving as project lead identified four individuals to serve as QI Team Leads: Director of Enterprise Applications, Director of Enrollment Services, Assistant Registrar/Student Records Specialist, and Division Chair/Faculty Member. These four were sent email letters of invitation explaining the project and an invitation to participate. Together they vetted the list of potential QI committee members proposed by PC, calling for a few adjustments of participants. The final list of participants were emailed letters of invitation with project details. When the larger group was first assembled via zoom they were posed the same question, "is everyone here who needs to be here to assure project success?" The final QI committee was comprised of 13 individuals, with two additional sub-committees, and other individuals called upon as necessary.

Members of the QI committee were charged with sharing back out to their departments and any respective committees they participated in the work of the QI committee. The VPODHR kept PC updated and reported project progress to Curriculum and Academic Affairs, and College Senate.

Due to the sweeping impact on the change in the delivery of student services, those directly affected were provided the opportunity to preview the Navigate product and have a say in the decision to move forward. The same holds true for the data platform Edify, where all parties directly involved and members of the QI committee were given the opportunity to review the product.

When purchasing decisions were ready to be made additional individuals outside of the QI committee were involved in discussions. Due to the cost of the Navigate and Edify products the NIACC Board of Directors approval was required to make both purchases.

This project was a success in its value and worth in that it forced focus on groundwork data pieces some on the committee described as, "long overdue". More importantly this writer cannot recall a time in the past when such a broadly represented group in numbers of this magnitude had the opportunity to not only preview, but had a say in the product selection for the College.

7. Describe the most important points learned by those involved in the initiative.

By engaging a cross section of individuals with different experiences across the institution we were really able to better understand the extent of data user's frustration with the current system. Together we were able to identify a product that does seem to address the majority of the needs expressed.

There is overwhelming institutional support for this QI. It touches so many different facets, and it is comforting to know the support is there to afford employees time and energy with the financial resources to launch the analytic software program.

Most importantly, despite the challenges presented in question 5 previously, people will contribute and rise to the occasion when asked for something they believe in.

Resource Provision

8. Explain the human, financial, physical and technological resources that supported the initiative.

Human, financial, and technological resources supported this QI. In addition to those positions named previously, the Enterprise Applications Team, and Chief Information Officer were involved to determine the capability of the data analytic product Edify. The QI Team also circled back through to the Guided Pathways Implementation Team as they too had a vested interest in the analytic product selection. Invitations were widely shared to join demonstrations of Edify. PowerPoint presentations and fact sheets were also made available and shared widely throughout the College. The QI Team also consulted with the Title III Team working to submit the revised grant application for the fund-down award. With the recommendation of the QI Data Team to secure Edify as the data platform supported by President's Council, the Guided Pathways Implementation Team, and the Title III Team, the request was moved forward by the Vice President of Administrative Services to the NIACC Board of Directors for approval.

With both the Student Success Collaborative (Navigate) program and Data Platform (Edify) housed with the same vendor, the College secured a bundled contract for the two programs for five years beginning April 22, 2022. The financial impact per year for both programs with advisory and support services are as follows:

Year 1 (April 22, 2022 – April 21, 2023) \$152,800

Year 2 (April 22, 2023 – April 21, 2024) \$141,934

Year 3 (April 22, 2024 – April 21, 2025) \$146,192

Year 4 (April 22, 2025 – April 21, 2026) \$150,578

Year 5 (April 22, 2026 – April 21, 2027) \$155,095

The College monies were from the Iowa Guided Pathways Grant, where \$50,000 was reserved for an investment in data analytics software. The remainder of the funds will come from the Title III awards. If the College should not be successful in the fund-down round of Title III, the commitment has been made to fund this initiative due to its critical importance.

This QI addresses the current state of inadequate technology to make timely data driven decisions. The technological resources in addition to those noted above include the time investment for ongoing training of faculty and staff to fully use these new resources.

Plans for the Future (or Future Milestones of a Continuing Initiative)

9. Describe plans for ongoing work related to or as a result of the initiative.

As discussed previously, the timing of purchase of the analytic software is delayed from initially proposed in the QI Proposal. The purchase agreements for Edify (and also for Navigate) were approved by the NIACC Board of Directors at their April 19, 2022 meeting. The initial set-up call is being scheduled for next week (first week of June). This does mean two components of the QI Proposal have been paused, 'Begin Using the Product,' and 'Establish Regular Data Training.' The CORE Team, which will continue to carry on this QI work is aware and is prepared to participate in and leading these two components. Also mentioned previously is the ongoing nature of the review and revision of data standards. Now that the data standards are back up to date, a cycle has been created for the CORE Team to continue to be mindful to review them. Once Edify is up and running new analytics will be available for study including, but not limited to: *Student Equity, Enrollment, Advancement, Student Wellness, Program Review and Management, and Academic Performance Analytics*. The new access to data will undoubtedly lead to more ongoing work.

Navigate is included in this discussion because although not specifically associated with this QI, it is so interwoven it also proves a critical component. Navigate also holds some analytic capabilities with regard to student services. Navigate results, along with Colleague data (fed by CANVAS) to Edify, will integrate into one comprehensive data platform solution. Moving to Navigate does call for changing the method of delivery of services and products for counseling and advising, and the early alert system. That work and the analysis of effectiveness will need to be evaluated over the life of the five-year contract.

As the QI Team met and discussions occurred, momentum and energy began to take place. Not wanting to stall that, yet not hold up the tight timeline of the QI work a 'parking lot' for unaddressed items was created. These items will move to the Data Governance Committee (CORE Team) to work on moving forward.

The College does have various forms of benchmarking reports from NCCBP, VFA, CCSSE, SENSE, Great Colleges, etc. Now that the College will have a better tool to perform and conduct analytical comparisons over time, the QI Team thought it would be "fun" to create an Annual Institutional Data (scorecard) report that one might see larger colleges create.

The QI Team also thought there would be great value in creating a list of all surveys/reports and timelines currently conducted by the College. Surveys and reports are not centralized at the College, but are conducted by various departments depending on which entity the survey is due to. The QI Team thought a comprehensive list could serve helpful with institutional research and succession planning to help assure a survey does not get missed.

Since research is currently conducted across the College by data miners and report writers that will have increased opportunity for new audiences to run data reports once Edify is fully functional, the QI Team thought developing a Communication Plan for research distribution would be valuable.

Of note with the final two, review of these works may help to avoid duplication of effort.

10. Describe any practices or artifacts from the initiative that other institutions might find meaningful or useful and please indicate if you would be willing to share this information.

NIACC is always willing to share its best practices and lessons learned from initiatives that didn't go as well as planned. The College previously participated in an additional survey since IPEDS graduation rates showed an increase of at least 10 percent from 2015 to 2020 which included highlighting best practices during this period.

From this initiative a helpful resource for colleges committed to continuous quality improvement might be:

<http://leanmethods.com/resources/articles/reaching-people-effectively-communication-plans/>

The above resource is from Lean Methods Group and was largely used in the design of the communications and engagement plan. This article was shared along with the Communication and Engagement Plan with President's Council. A faculty member on the QI Data Team, who also serves as a director on the Center for Excellence in Teaching and Learning (the College's faculty-led professional development center) asked to share this piece in the resource library for faculty.

The Software Selection Rubric was developed by the QI Data Team after reading and researching several sites and articles. This tool could prove a useful resource for colleges who find themselves under a time constraint with little time to develop their own.

Although it may seem trivial, the Data Dictionary/Guidebook may also be of value to the smaller colleges like NIACC. In Iowa, the 15 community colleges are fairly well connected and communicate frequently sharing developed resources. When checking with the other Iowa community colleges, only the two largest, Des Moines Area Community College and Kirkwood Community College had created such documents. Our committee largely used research from vendors for recommendations on development of the Data Dictionary/Guidebook.