2021-2022 QEP Focus Group Study Report Early Alerts: Improving Retention and Closing the Equity Gap

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I. Purpose of Study

James Madison University has selected *Early Alerts: Improving Retention and Closing the Equity Gap* as its quality enhancement plan (QEP) theme for its 2024 reaffirmation of its Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) accreditation. At JMU, faculty and staff across the university support and facilitate the engagement and retention of students. An early alert system (EAS) is intended to assist these practitioners by connecting them with data-informed and timely notifications about targeted student segments, so they may proactively intervene.

This study was conducted in the 2021-2022 academic year, during the research phase of the QEP working group. During this phase, the QEP formed four sub-working groups – literature research, peer institution research, campus focus groups, and institutional systems data – to explore existing practices and assess the needs and capabilities of the institution regarding engaging and retaining students.

The successful implementation of learning analytics (LA) technology, such as an EAS, at higher education institutions relies on the consideration and engagement of all stakeholders, including faculty, staff, and students (Klempin & Karp, 2018; Mackney & Shields, 2019; Mahmoud et al., 2021). Existing frameworks for innovation and LA implementation often include stakeholder involvement as a key consideration (Arnold et al., 2014; Clark et al., 2020; Gasevic et al., 2019; Karp & Fletcher, 2014; Norris & Baer, 2013; Rogers, 2003).

Aligned with best practices and needs of the QEP working group, this study was an exploratory study with two purposes:

- 1. To engage stakeholders (faculty, staff, and students) in the process of designing and implementing an EAS; and
- 2. To gather information about the needs and perspectives of stakeholders (faculty, staff, and students) that will help inform the design and implementation of an EAS at JMU.

II. Study Design

A qualitative focus group approach was used for this study. Distinctive focus group categories were formed based on shared experiences and job responsibilities (see Table 1). QEP working group members managed the registration process and served as the focus group facilitators. A total of 37 hour-long focus groups with 132 participants and 52 completed post-surveys were analyzed for this study. Participant recruitment and demographics and the data collection and analysis process is expanded upon below.

(a) Study Timeline

Table 2 provides an overview of the study timeline. An initial 16 faculty and staff focus groups were held between the Thanksgiving and winter breaks during the Fall 2021 semester. To capture additional stakeholder perspectives that were not included in the initial focus groups, an additional 10 faculty and staff focus groups were offered in January 2022, prior to the start of the Spring semester. 21 student focus groups were offered over a period of three weeks in February and early March.

Table 1

Distribution of Focus Groups Offered and Participants by Focus Group Category

Focus Group Category	# Focus Groups	# Participants
Academic Support Faculty/Staff	5	19
Academic Advisors (full-time, faculty, first-year, transfer, athletic)	4	16
Academic Support Partners (ODS, SMLC, SLI, UWC)	1	3
Academic Affairs	8	51
College Leaders (deans, assistant deans, department heads)	2	4
All Faculty	4	38
Graduate School Faculty	2	9
Student Affairs Staff	7	30
Student Affairs Leaders (directors, assistant directors)	2	9
On-Boarding (admissions, orientation, ORL)	1	2
Well-Being (counseling center, DOS, OSARP, UHC, UREC)	3	16
General Student Affairs	1	3
Other Faculty/Staff	4	17
DEI Partners (CMSS, SOGIE, ISSS, ODS, DEI positions)	2	6
Administrative Offices (financial aid, registrar, UBO, etc.)	1	8
General All	1	3
Students	13	15
TOTAL	37	132

Table 2

2021-2022 QEP Focus Group Study Timeline

Step	Description	Timeline
1. Faculty/staff focus groups planning and recruitment	Identify target faculty/staff populations, identify focus group dates, create, and manage recruitment plan	Sept – Nov 2021
2. Initial faculty/staff focus groups	Conduct 16 faculty and staff focus groups and gather data	Nov – Dec 2021
 Second phase of faculty/staff focus groups 	Conduct 10 faculty and staff focus groups and gather data	Jan 2022
 Student focus groups planning and recruitment 	Identify target student populations, identify focus group dates, create, and manage recruitment plan	Jan 2022
5. Student focus groups	Conduct 21 student focus groups and gather data	Feb – Mar 2022
 Review and edit recording transcriptions 	As focus groups are conducted, review and edit recording transcriptions	Jan – Apr 2022
7. Thematic analysis	Three working group members conduct thematic analysis independently	Apr 2022
8. Consolidate findings	Working group members met to consolidate findings and generate report	Apr 2022

(b) Participant Recruitment and Demographics

Participants self-registered for one of the 47 planned focus groups using an online registration form, which guided participants in selecting an appropriate category of focus groups. The registration form was made available to faculty, staff, and students via bulk-emails, the QEP working group webpage, and direct outreach to departments and student groups.

117 faculty and staff members and 15 students participated across 37 focus groups. Demographic data was not collected beyond the focus group category participants self-selected. Table 1 presents the distribution of focus groups offered and participants by category.

In Table 1, a participant is only represented by the focus group category they selected. It is possible that a faculty and staff focus group participant may have represented multiple categories, but due to study design, self-selected into a particular focus group. For example, a faculty member who serves as an academic advisor could have selected either a faculty group or an academic advisor group. Therefore, representation of faculty and staff is more wide-ranging than presented in Table 1.

Students also self-selected into a focus group category. Due to low participation, the categorization of students may be seen as insignificant; therefore, Table 1 does not describe the student focus group categories and number of student participants per category. Though student low participation, student participants did provide valuable insights that are included in this report.

(c) Data Collection and Analysis

Focus groups followed a virtual semi-structured format in which the facilitator was provided a script and guiding questions, but structured questions around conversation flow and participated in conversation with follow-up questions and clarifying information. Not all questions were directly asked in every focus group, nor were asked in the same order. Participants were provided a link to an optional two-question post-survey at the conclusion of the focus groups, which was an opportunity to provide additional insights through two free-from responses. Focus groups were conducted, recorded, and transcribed using Zoom.

Data was collected through a thematic analysis of the transcriptions and the post-survey responses. The analysis was completed by three QEP working group members. An initial detailed analysis was completed separately by each member. Then together, they compared analyses and developed broader themes.

(d) Limitations

Focus groups studies present limitations due to representation and generalizability. Though there 117 faculty/staff participants representing a wide range of roles, it should be acknowledged that those who participated were generally those with background or interest in learning analytics, technology, or diversity, equity, and inclusion. As previously noted, there was low student participation and student demographics are not reported in this study. The QEP working group acknowledges the importance of including the voices of all stakeholders, in particular the students this system seeks to support, and hopes to find ways to better include students in the design and implementation process.

The broader context of this study should also be recognized. First, this study was conducted during the COVID-19 pandemic. The impact of COVID-19 on student readiness for college and mental health framed some discussion around the need for increased student resources. Second, this study was conducted during "Reengineering Madison" - a multi-year technology project to increase capabilities and replace existing systems. This EAS is one of the encompassed projects. There was some confusion regarding the role of the EAS versus other Reengineering Madison projects. Lastly, shortly before the student focus groups, the JMU community experienced a series of mental health crises. The role of mental health and the need for increased mental health resources was largely discussed in student focus groups.

III. Findings

(a) Perception of Retention

"My impression is that for a lot of us, we take retention for granted that students want to return to JMU, and I don't think that we give really serious consideration to the reasons why students don't return." –Faculty member

All participating faculty and staff members were asked how from their perspective at the university they frame or understand retention at JMU. A large majority of participants responded in one of three ways – either they perceive retention at JMU as good or a non-issue as compared to peer institutions, they are unaware of retention trends at JMU, or retention is not a conversation in their department. A small number of participants responded with a concern that JMU's high retention is taken for granted and that they feel the rates are decreasing due to factors including increasing lack of adequate academic preparation, increasing mental health concerns, and the broad impacts of the COVID-19 pandemic. Once these concerns were shared, there was often agreement from other participants, even from those who initially responded that retention was a non-issue or that they were unaware of retention trends.

Despite lack of awareness or conversation regarding overall retention at JMU, most participants understood that retention may not be as strong among certain student demographics. Though not aware of data, participants often shared anecdotal evidence and firsthand experiences with students from underrepresented populations that struggle to find community, lack of academic preparation, and/or experience financial or basic needs insecurity. There is a general sense that there are conversations being had regarding retention and equity at college- or department-levels, but there are not a great number of resulting policies or active initiatives. Those initiatives that were shared were at the beginning stages or often handled on an individual level.

(b) Student Experiences

"What makes a great professor is being a person first and a professor second. It is important for professors to treat students like people and not just a student." —Peer advisor/mentor

The analysis of the student focus groups revealed the deeper revelation of what students are experiencing internally and externally. Analysis of the student focus groups resulted in three key takeaways: 1) students are humans and face human things that do not pertain just to academics or a role you play at JMU, 2) students want agency, and 3) the human experience (student experience) is complex. School-life balance, community and belonging, and identification and use of resources seem to be some common elements of the student experience regardless of academic classification.

Student participants highlighted the role mental health has played in their peers' and their own student experiences. Since mental health has become such a large topic, there was a feeling faculty and staff should be aware and supportive of students' mental health needs. Once such was to support mental health is supporting school life balance – participants want and need the support for and flexibility to engage with resources and active in JMU and the surrounding community. For these students, support is more than just verbal support, it is action. For example, analyzing what barriers exist for students seeking to engage with resources, student organizations, and the community (e.g., late evening classes).

Participants also recognized how important connections with peers and faculty/staff have been for their own success. Many participants attribute their success and sense of belonging to meaningful connections between faculty/staff members and having a community of peers. For example, although students articulated how an enthusiastic professor makes them want to attend class, it is the personal, one-on-one conversations with instructors and peers that lead to success. However, participants also shared several

first-hand stories that demonstrate how systemic barriers and actions by faculty, staff, or peers, even when not ill-intended, have negatively impacted their perception of and sense of belonging at JMU. In particular, several stories demonstrated how often faculty, staff, and peer leaders (e.g., TAs) are oftentimes illequipped to handle discriminatory comments or actions. Participants felt it to be the institutions' responsibility to educate faculty, staff, and students on how to handle tough and sensitive conversations.

Despite knowing that meaningful connections and engagement with the community and resources are essential to student success, participants felt that they and their peers do not adequately take advantage of the resources available. This is primarily due to not being fully aware of the breadth and depth of resources available to students. Participants in the focus groups widely discussed how either they or their peers often know that resources exist, but it is not clear when to use them and where to find them. And when they do find them, they find the resource to be limited, leaving them discouraged. The lack of availability of the counseling center, being the most often cited limitation.

Table 3

Theme	Contributing factors
Engagement	Sense of belonging
	 Meaningful connections with faculty, staff, and/or peers
	 Engagement with academic program(s)
	 Engagement in the classroom (attendance, preparation, involvement)
	 Engagement with JMU community
	Sense of personal, academic, and career trajectory
Growth mindset	 Resiliency, persistence, and adaptability
	 Motivation, involvement, and sense of belonging
	 Knowledge and use of resources
	 Willingness to self-advocate, take initiative, and seek help
	Interpersonal skills
Academic	 Engagement in the classroom (attendance, preparation, involvement)
behaviors/	 Engagement with academic program(s)
performance	 Learning strategies (study skills, organization, time-management)
	Interpersonal skills
	 Knowledge and use of resources
	 Willingness to self-advocate, take initiative, and seek help
	Academic perseverance
	Timely academic progression
Healthy habits	 Regulated academic and social involvement
	 Organization and time management
	 Holistic well-being (physical, social, and mental health)
	 Strategies to manage anxiety and pressure
	 Knowledge and use of resources
	Willingness to self-advocate, take initiative, and seek help
Outside factors	 Basic needs (food, housing, and transportation security; physical health)
	Financial stability and literacy
	Family support and stability
	Outside obligations (e.g., family obligations, employment, etc.)

Indicators of Success/Risk Discussed in Faculty, Staff, and Student Focus Groups

(c) Indicators of Success/Risk

In faculty and staff focus groups, academic progress and academic standing were discussed as obvious indicators of success/risk. However, participants primarily focused on non-cognitive factors that may serve as earlier indicators or may underlie academic concerns. Student participants also focused on these non-cognitive indicators when discussing their perceptions of what makes students successful at JMU. Analysis of the academic and non-cognitive factors discussed by faculty, staff, and students resulted in five overarching themes – engagement, growth mindset, academic behaviors/performance, healthy habits, and outside factors. Table 3 outlines how factors discussed by participants contribute to each of these themes.

While faculty and staff were quick at identifying grades and mid-term grades as easy and quantifiable indicators of success/risk they also acknowledged the challenges of compiling the information and its usage. In particular, mid-term grades were widely discussed by faculty and academic advisors. Mid-term grades are perceived as unreliable and untimely due to inconsistencies in their reporting and how late into semester mid-term grades are reported. Thoughts on mid-term grades reinforced how, for many, current retention practices related to academics are reactive. It also shows how important it is that an EAS produces timely and meaningful data and alerts. Additional perspectives and proposed solutions to the mid-term grade system are discussed in a following section on the usability of data.

There was discussion of demographic indicators for student success; however, several faculty and staff participants expressed hesitancy and some expressed resistance to using demographic student data. Hesitancy and resistance resulted from a range of ethical concerns, the most widely discussed being the potential for data misuse (e.g., stereotype threat) and the impact being aware of demographic risk factors may have on students' persistence and mental health. Ethical concerns raised by participants are elaborated on in the next section.

Some participants shared that they currently use demographic data to inform their practice and would like greater or easier access to data, such as, first-generation status, transfer student status, and hometown and high school information. These participants emphasized that when using demographic data to inform practice it is important to avoid generalization and assumption and if it was to be used in this system, explicit data governance policies and stereotype threat training may be necessary.

(d) Design and Implementation Considerations

Participants were asked what would encourage or discourage their use of a potential EAS. Facilitators encouraged participants to think about useful data or features, the look and feel of the platform, and how they would interact and be interacted with. What emerged from these conversations was more than just input on the user experience, but also a broader discussion of the readiness of JMU to implement an EAS. Five themes emerged from these conversations that may guide the design and implementation of an EAS: 1) the consideration of institutional readiness and responsibility, 2) how students will be given agency, 3) the integration of the system with existing systems and workflows, 4) the usability of data and information, and 5) continued stakeholder engagement.

(i) Institutional Readiness and Responsibility

"Student data isn't safe anyways, so I wouldn't be surprised if they are tracking other things. It is better to be open and transparent about data and if they are watching us, they should let us know." –Junior

"We need to have the tools, but we also need to have the people to be able to execute this effectively." –Academic advisor "What is our role? How much can/should we invest ourselves outside of classroom? Is that an insertion? Is it required?" –Faculty member

"If we're always talking students through a crisis or something that's generated by an early alert, it would put vulnerable, well-intended advising staff at higher risk." – Academic advisor

"...the problem of looking to a technology to provide a solution for our community and societal shortcoming is attractive because it's a package, but it is not actually a solution." –Faculty member

Through analysis of the discussions regarding concern for JMU's readiness to support an EAS, four overarching themes emerged – concerns related to JMU's technology infrastructure and support, concerns related to the capacity of faculty and student services, concerns related to culture, and the need for explicit expectations and training. Table 4 summarizes factors discussed by participants that contributed to these themes.

Aligned with the literature informing the ethical use of student data and learning analytics, participants raised concerns regarding transparency, clear data governance policies, and students' ability to opt-out of their data being used. Students are aware that their personal data is being shared in some way, but still emphasize transparency and autonomy. For student participants, it was important to have consent when collecting data and they want to have the autonomy to opt-out of anything that they might have signed up for. Even if we are communicating with a third party, students want to know that. The importance of transparency and consent was also echoed by faculty and staff participants, some of which called for clearer and/or more awareness of data governance policies.

Whether the JMU's resources are prepared to respond to the needs generated by an EAS was the most discussed concern in all faculty and staff focus groups. Faculty, staff, and students all expressed feelings that their own capacities and the capacities of existing student services are maxed out. They question whether JMU's services are resourced in a way that they can responsibly act, or if alerts are going to go unresolved and potential risk indicators be missed. Faculty, staff, and students all called specific attention to the current burden on the counseling center and academic advisors – already unsustainable, the demand will only increase with an EAS. These conversations included calls for leadership to seriously consider the human and fiscal investment needed to responsibly support this initiative. The most crucial investment being the human and technological resourcing of the student services expected to respond to alerts and demand for services.

In several focus groups, there was also discussion of the culture shift needed for JMU to be ready to implement an EAS. Faculty, staff, and students widely perceived JMU as reactive and insincere. This applies not just to the approach to student success, but how participants, especially students, perceive JMU's approach to events and issues that impact the JMU community. There is a lack of trust between the stakeholders and the university leadership resulting from a lack of transparency, a lack of support, and a lack of follow-through. For an EAS to be successfully implemented, there is a need for a proactive top-down approach, beginning with rebuilding trust with stakeholders. Further, participants placed the responsibility of investing in the technological and human capital necessary to support student success in the hands of university leaders. They see it as the responsibility of leadership to make the policy changes and commitments necessary to begin the cultural shift that will push JMU to evolve into an institution ready to serve all students.

Table 4

Category	Contributing factors
Technology infrastructure and support	 Human capital to support EAS and other supportive technologies Siloed communication networks; lack of university wide communication tool Lack of centralized system to coordinate student services Need for systems supporting student services (e.g., integrated planning and advising system) Lack of integration between existing systems
Capacity of faculty/student services	 Current inadequate resourcing of student services Added demand for counseling, wellbeing, advising, tutoring, and other services Added responsibilities for faculty/staff Added mental health burden for faculty/staff If EAS increases efficiency, concern more responsibility given in place, despite already strained faculty/staff Consideration for those with large class sizes (e.g., GenEd classes) and advising caseloads
Culture	 Technology is not a solution to a cultural problem Perception of reactive, rather than proactive approach to student success Lack of trust in university leadership due to lack of transparency, support, and follow-through Need for sincere commitment and clear communication from leadership
Need for expectations and training	 Related to added responsibilities and mental health burden of faculty/staff Need for policies governing data generation, storage, maintenance, and use Need for clear expectations for all stakeholders (faculty, staff, and students) Need for increased awareness of available resources (related to need for centralized system coordinating student services) Need for training related to changing expectations, available resources, and supporting mental health of students

Factors of Concern Regarding JMU's Readiness to Support an EAS

(ii) Student Agency

"I think that there's potential harm if it isn't available to students, because you're not looking at it as an opportunity to empower them...and you're not allowing them to explore and have equal partnership in their education." –DEI partner

"It is actually more than retention as it can have a huge impact in the student's life. It is helping the student become successful in their own life" –Administrative staff

"Parents are reaching out to help them fix their problem as opposed to helping them find ways to resolve their problems" –Faculty/Staff

"I think if we...add to the advisor's responsibility to take care of the student, we're taking that independence away from those students or making them have less initiative instead of more." –Academic advisor

Traditional early alert systems attempt to address both academic and non-cognitive measures through two features – analytics based on predictive features (e.g., grades, demographics, etc.) and alerts issued by faculty/staff regarding student behavior (e.g., missed classes, mid-term grades, behavioral concerns, etc.).

However, in several faculty/staff focus groups, there was a re-imagination of the role of an EAS resulting from a discussion of the importance of student agency. There was wide support in these focus groups for the design of an EAS that supports the development of key behaviors of successful students, such as initiative-taking, self-advocacy, and self-regulation. Features discussed that may contribute to student development included giving students access to a data dashboard and using nudges coupled with action choices that encourage and reward initiative.

Some participants acknowledged that a system designed around student agency may begin to address concerns regarding academic advisor, faculty, and student affairs staff capacity. These may no longer be the primary parties responsible for referrals to student success resources. The EAS could become the primary source of referrals, freeing up practitioners to do more of what a faculty advisor participant described as "that sticky, soft, personal, interpersonal work."

The question of student agency also brings up questions regarding the role of family members/parents. Considering the significant role that family members/parents play in a student's life and are often involved in their student's education; they may need to be educated about JMU's approach and resources. When it comes to parents/family members, faculty and staff recognized the importance of collaborating and sharing information about resources and how to empower their students.

(iii) Integration

"Integration to what we're already using...I have to enter data into multiple places right now, and that's very frustrating and time consuming...and that our students are already using as well because it's hard to have multiple platforms for us and for them." –Academic advisor

"I feel like if it was, yes, we're never going to find something that works for everyone. I 100% agree with that. But can we focus on something that works for the students..." —Faculty member

Almost universally, the first comment made when focus groups were asked what would encourage them to use a potential EAS was related to whether the platform will be integrated into an already widely used platform. Participants warned that if this is just another system they need to log into, it will likely not be widely used. Rather something that is integrated into Canvas or MyMadison, which are platforms used almost daily by stakeholders, would make it easier to interact with and issue alerts. Students also offered suggestions, such as creating an app that integrates all currently used platforms and using notifications or text messaging to alert students to action items.

Faculty, staff, and students made it clear that ideally, there would be a single platform that integrates all data and information into meaningful insights, is able to be tailored to campus roles, and is where users can act. For example, for advisors, this would be a place where they can issue alerts, communicate with students, manage appointments, and keep notes. For students, this would be a place where they can view their academic progress, schedule appointments, address holds, and send messages.

There was some acknowledgment that there may not be a solution that fits all needs and expectations. In the faculty and staff focus groups that did acknowledge this, there was agreement that any solution should center the student. When making design decisions, the focus should be the needs and experiences of students. One such design consideration raised was the use of the term "alert". Some participants questioned whether the term is too strong and what the resulting impact on students' mental health may be, especially for those students who are already struggling. Some suggested coupling alerts with kudos messages that recognize positive behaviors. Others suggested replacing the word altogether.

(iv) Usability of Data

"...making the data much more accessible and user friendly in a way that once we get it, we actually can interpret it better, we can actually use it more efficiently." —Academic advisor

Faculty, staff, and students all expressed that increased access to meaningful data, whether through an EAS or another tool, would be appreciated as a decision-making tool. What participants meant by "meaningful" can be summarized as reliable, timely, accessible, and tailored data and information.

Previously discussed was faculty and staff perceptions of mid-term grades. Those who input mid-term grades find the process time-consuming and unsystematic and those who use mid-term grades find them unreliable and untimely. Yet, there was recognition that some form of a systematic progress report issued earlier in the semester and which faculty can use to provide more meaningful information would be beneficial for faculty, advisors, and students. Some examples were provided, including expanding Athletics' progress report system to all students, or adopting a standardized non-grade-based system (e.g., a stop light system). Further, some imagined a progress report that put the responsibility to respond on the student, while supporting them with action steps, encouragement, and reminders.

Another complaint about mid-term grades is that those who issue them do not know how they are ultimately used. This was also a concern raised regarding Madison Cares – the system currently used to alert the Dean of Students office to student concerns. Faculty and staff express a lack of transparency and closure with these systems. Yet, there was also expressed concern for the privacy of students. Proposed solutions that balanced the need for "closing the loop" and privacy was having a centralized office that manages alerts and/or documented expectations for how alerts will be acted on.

Despite concern for the reliability, timeliness, and accessibility of data, faculty and staff participants exhibited an openness to using data to inform their practice. During faculty and staff focus groups there were a range of questions and ideas that demonstrate a culture of critical thinking, data-informed decision making, and desire for a more integrated approach to student success. For example:

- What data is everyone already collecting? Can this data be integrated?
- Study data in terms of how many freshmen departments are losing.
- Can an algorithm be created to find out who performs best in which class?
- Do students who attend orientation do better than others?
- Focus on students who are successful. What makes them successful?
- What departments offer program orientation? Are these departments more successful in retaining their students?

As discussed previously, students also shared enthusiasm for increased access to personalized data and information that can inform their academic planning and decision making. Also, previously discussed was student agency – students want agency to design their experiences. Students emphasized to make a system useful, it should allow them to interact with tailored data and based on that data, give them intentional action steps and resources would assist them in navigating their academic paths.

(v) Stakeholder Engagement

"...maybe there would be a continuing forum or whatever that look like in order to get together with all of us using the same platform...and discussing best practices and...really start to work more as a community around this." –Academic advisor

One purpose of this study was to engage stakeholders in the design and implementation of the EAS. Despite critical discussion and feedback, there was appreciation expressed by many participants, feeling as though

these focus groups were opportunities to give input, but also opportunities to connect with and learn from members of the JMU community. For some, there was desire for opportunity to continue conversations with colleagues.

It should be noted that those who facilitated and reviewed the focus groups felt their own perspectives becoming more informed and nuanced. The ideas that were had in the focus groups were often brought by facilitators to QEP working group meetings and acted upon or used to guide work moving forward. This demonstrates, for any project, the importance of making a genuine effort to bring together and listen to all stakeholders not just as a tool for building awareness of the project, but for strengthening the aim and impact of the project.

As the project moves forward, stakeholders made it clear that they desire continued transparency and opportunities to engage. Most importantly, they want clear information on how they will be expected to interact with the system once implemented, many expressing a desire for resources and training not just for the system, but to build skills to be a better resource for students (e.g., a reference guide of student services, mental health training, and inclusive practices training).

IV. Recommendations

Table 5 connects the themes discussed in the findings to considerations for the QEP as the working group moves to the design phase of the project. As the QEP working group moves forward, they should prioritize explicit communication and continued involvement of all stakeholders (faculty, staff, and students), beginning with a critical assessment of the role of an EAS and thorough evaluation of resource capacity.

However, participants questioned more than the role of an EAS and student resource capacity – they also questioned if JMU is culturally ready to tackle issues of retention and equity. No matter what retention efforts at JMU will consist of the effort will demand a significant culture change to unite our dismantled community of faculty, staff, and students who are already feeling overwhelmed, and stretched thin. Participants made clear that there is a cultural change needed at JMU and placed the responsibility for the commitments and policy changes needed to start this change in the hands of university leadership. This culture shift, like the implementation of an EAS, is dependent on empowering its stakeholders and targeted recipients, therefore, requiring an individualized approach.

While an early alert system may help us more easily integrate department, faculty, and staff efforts to reach both individual and groups of students by obtaining a bigger picture of some of the challenges that they may be facing, the situation and needs of students may remain the same or worsen if they cannot rely on a supportive community and if JMU cannot provide the necessary resources. Those faculty, staff, and students who participated in focus groups have made it clear there is:

- 1. a lack of community and cohesion primarily felt by targeted student segments;
- 2. no clear understanding of existing student resources/services and a perception that JMU is not sufficiently resourced to be able to offer the necessary assistance to all students who may need it; and
- 3. a desire for access to meaningful data and information so long as any system prioritizes ease of use and student agency.

Before embarking on the journey of assembling all departments', centers', and offices' data and efforts together into one CRM and EAS, it is encouraged that both the QEP working group and university leadership critically consider the readiness of JMU to commit to the infrastructure, cultural, and policy changes needed to support these systems.

Theme	Resulting Considerations
Perception of retention	• How can the QEP better educate the JMU community on the retention concerns and equity gaps that exist at JMU?
	• Given the perception that retention is a non-issue, in what other ways can the QEP gain buy-in from stakeholders?
Indicators of success/risk	 Evaluate the mid-term grading system; consider replacing it with a timelier and reliable progress report system. Integrate both academic success indicators and non-cognitive factors (e.g., engagement, growth mindset, healthy habits, etc.) in the EAS.
Institutional readiness and responsibility	 What changes to culture, infrastructure, and policy are needed? What is JMU's responsibility to act on generated information? Assess the current capacity of resources and faculty/staff engaged in student success efforts. Is JMU adequately resourced to respond to needs generated by an EAS? How does an EAS impact current roles and expectations of faculty/staff? How will these changes be communicated and supported? Who will be responsible for: Managing data/alerts generated by the EAS? Who will be responsible for managing student cases? Follow-up and case closure?
Student agency	 How do we ensure transparency and give students the ability to opt-out? How do we ensure student empowerment through the EAS? How may an EAS support the development of key behaviors of successful students (e.g., initiative, self-advocacy, self-regulation)? What is the students' role in an EAS? How will they be involved? How do we support students on a human level? On a community level? What is the impact of the term "alert" on students? Is there a better term?
Integration	 What meaningful data is being collected throughout campus? Can and how will data be integrated? How will the EAS be integrated into existing systems and vice versa? How do we balance efficiency and impact when designing the user experience (e.g., interaction with system, issuing of alerts, etc.)? Will those who issue alerts know when and what action was taken in response? How will they know?
Usability of data	 What is the purpose of collecting data and issuing alerts? How will consistency be ensured in the input and interpretation of data/alerts? What mechanisms will be in place to ensure reliable and timely data/alerts?
Stakeholder engagement	 Considering low student participation, how can we better involve and understand the needs of students and student groups, especially those facing the equity gap the QEP is seeking to address? How will stakeholders be involved in the process moving forward?

Table 5Summary of Themes and Considerations for QEP

What expectations are there for stakeholders once the EAS is implemented?How will training and resources be provided to support users?

V. References

- Arnold, K. E., Lonn, S., & Pistilli, M. D. (2014). An exercise in institutional reflection: The learning analytics readiness instrument (LARI). *Proceedings of the Fourth International Conference on Learning Analytics and Knowledge LAK '14*, 163–167. <u>https://doi.org/10.1145/2567574.2567621</u>
- Clark, J.-A., Liu, Y., & Isaias, P. (2020). Critical success factors for implementing learning analytics in higher education: A mixed-method inquiry. *Australasian Journal of Educational Technology*, 36(6), 89– 106. <u>https://doi.org/10.14742/ajet.6164</u>
- Gasevic, D., Tsai, Y.-S., Dawson, S. and Pardo, A. (2019). How do we start? An approach to learning analytics adoption in higher education. *International Journal of Information and Learning Technology*, Vol. 36 No. 4, pp. 342-353. <u>https://doi.org/10.1108/IJILT-02-2019-0024</u>
- Karp, M. M., & Fletcher, J. (2014). Adopting new technologies for student success: A readiness framework. Teachers College Columbia University Community College Research Center. <u>https://ccrc.tc.columbia.edu/publications/adopting-new-technologies-for-student-success.html</u>
- Klempin, S., & Karp, M. M. (2018). Leadership for transformative change: Lessons from technologymediated reform in broad-access colleges. *The Journal of Higher Education*, 89(1), 81–105. <u>https://doi.org/10.1080/00221546.2017.1341754</u>
- Mackney, S., & Shields, R. (2019). Learning analytics for student success at university: Trends and dilemmas. In T. D. Jules & F. D. Salajan (Eds.), *The Educational Intelligent Economy: Big Data, Artificial Intelligence, Machine learning and the Internet of Things in Education* (Vol. 38, pp. 251–268). Emerald Publishing Limited. <u>https://doi.org/10.1108/S1479-367920190000038015</u>
- Mahmoud, M., Dafoulas, G., Abd ElAziz, R., & Saleeb, N. (2020). Learning analytics stakeholders' expectations in higher education institutions: A literature review. *The International Journal of Information and Learning Technology*, *38*(1), 33–48. <u>https://doi.org/10.1108/IJILT-05-2020-0081</u>
- Norris, D. M., & Baer, L. (2013). Building organizational capacity for analytics. *EDUCAUSE*. <u>https://library.educause.edu/-/media/files/library/2013/2/pub9012-pdf.pdf</u>
- Rogers, E.M. (2003). Diffusion of innovations (5th ed.). New York: Free Press.