Aspire Alliance Sustainability Rubric



Primary purpose: The NSF Eddie Bernice Johnson INCLUDES Aspire Alliance Evaluation Team will be using this rubric to help answer the overarching evaluation questions below. This will be incorporated into the reflection sessions that each change team will participate in February 2024, and toward the end of Year 6. There are many ways to think about sustainability, including sustaining the programs themselves, staff support for programs, maintaining a focus on the mission or goals, and/or sustaining the outcomes. We do not expect that all current activities will be sustained in their current form.

Secondary purpose: This is also a self-assessment tool. You can use this at the activity, program, or change team levels to evaluate one component of a change team's work for a more detailed assessment of progress, or to assess the overall progress of the change team.

Overarching evaluation questions

- **OEQ1:** What are the change teams doing to support the sustainability of their work, and what are the gaps that remain? What will be sustained after the supplement year is over?
- **OEQ2:** How can each activity evaluated be improved, and what improvements would be useful for program sustainability?

NOTE: The categories in this rubric are presented in no particular order, and these categories are not intended to be weighted nor are certain categories considered more or less important.

	Developing	Stabilizing	Optimizing
Dimension of sustainability	<u>Definition</u> : Early-stage development of activities and practices that promote program sustainability	<u>Definition</u> : There is evidence of practices that are conducive to program sustainability, but there remain barriers to sustainability, or opportunities to improve these practices	<u>Definition</u> : The project or program is operating in an institutional environment or using practices that are highly conducive toward program sustainability

Funding	Current and projected funding is insufficient to sustain activities after the supplement year is over. Most significant funding sources (e.g. grants, institutional support) are in the early stages of being identified, for most or all activities. Funding sources are not diversified sufficiently to mitigate risks associated with individual funding streams. Stringent requirements exist from the funders, host institutions, or partners, which prohibit deviation from the initial proposal. Reporting and use of funds is subject to inertia of the status quo, without room to apply lessons learned and change direction. Strategy is not articulated or flexible in a way that supports future funding opportunities OR is articulated in a way that may compromise the organizational mission.	 External funding is sufficient to sustain some activities past the final year of the current grant, but projected funding is insufficient for all activities OR funding sources are not diversified sufficiently. May rely mostly on soft funds or temporary grants. Future funding sources may still be in the process of being identified, but progress on securing funds is further along than the 'Developing' stage. Developing relationships with funders, partners, and host institutions, such that there is some flexibility in reporting and programmatic requirements. The most critical activities or programs are funded, but others remain only partially supported. Reporting and use of funds can be modified, but may require extensive approval processes or justifications. Strategy may be articulated in a way that supports future funding opportunities but may not be entirely flexible OR may not be scaled appropriately (i.e. may be too broad or too narrow in scope). 	 There is a diverse portfolio of funding sources OR adequate, permanent institutional support (i.e. work sustained by line items in an institution's annual budget). Funding may come from longer-term grants or funding sources that can be more readily renewed, alleviating the need to search as often for supplementary funds. All activities both critical and peripheral to program goals are adequately funded. Flexibility in programming has been negotiated as part of funding terms (where applicable). Funder encourages continuous improvement, adapting to changing organizational and cultural conditions as necessary. Strategy is articulated and flexible enough to connect to future funding opportunities that may arise, without compromising the organizational mission. Strategy is scaled appropriately according to the needs and goals of the program.
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Personnel	Insufficient people-hours allocated to support project activities. Work is sustained on a voluntary basis from most people involved with programming. Most personnel do not currently have adequate expertise or training to support project activities, or do not feel they have this expertise. This includes areas such as financial management, procurement of new funds, human resources, and organizational management. Leadership remains the same, with no succession plan. Established leaders may be unwilling to delegate tasks or retire to make room for fresh ideas. There is little enthusiasm for diffusing leadership or delegating key tasks, and most leadership tasks are done by the same person or a small group of people.	Sufficient people-hours allocated to support some project activities. Limited dependency on volunteers for specialist roles that require expertise. Some personnel have adequate expertise to support project activities, and training structures are being developed to onboard additional personnel. This includes areas such as financial management, procurement of new funds, human resources, and organizational management. There may be limited efforts to identify new leaders and include them in efforts to delegate key work OR efforts to identify and include new leadership with fresh ideas has limited success. Established leadership may be reluctant to step back. There may be a limited succession plan for new leaders. Leadership is somewhat diffused – there are a limited number of people with ownership over key tasks.
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Sufficient people-hours allocated to support the project. Reliance on volunteer labor is minimal and only where appropriate.

Personnel are fully qualified and trained for all roles, and are appropriately compensated for specialist roles, including financial management, procurement of new funds, human resources, and organizational management.

Established leaders make room for new leaders, and are willing to retire from leadership roles to make way for fresh ideas. There is a full succession plan for new leaders.

Leadership is diffused, with multiple people in leadership roles who are willing to step up to complete key tasks, and who have agency to propose new ideas or approaches.

Information Resources	No or very limited documentation of program procedures, practices, strategic direction, or resources for internal and external use/propagation. Personnel engaged in programming have minimal or no supporting materials to learn about the work they will do on the program. The development of these materials may be planned.	Some documentation for program procedures, practices, strategic direction, or resources for internal and external use/propagation, but it is limited in scope or clarity. Personnel engaged in programming, especially new personnel, are supported by training and onboarding materials as required, but more could be done to streamline this process and make these materials accessible to other internal and external stakeholders.	Ample clear and detailed documentation for program procedures, practices, strategic direction, or resources for internal and external use/propagation. New and existing personnel engaged in programming are fully supported to use documentation in training, onboarding, reporting, and other key processes.
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Propagation

Definition: Propagation requires developing and sharing an innovation responsive to the needs, interests, and situations of potential adopters. Has only occurred when an innovation is used successfully by others. Requires dissemination.

(Stanford et al., 2015)

Program activities and practices may be disseminated across a variety of communication channels (e.g. email list servs, publications, conference presentations and posters, other media media) which are easily accessible and updated regularly, but plans to propagate these materials are vague, or not yet initiated.

There may be barriers to dissemination that ultimately hinder all propagation work, preventing programming from moving to the 'Stabilizing' stage.

There may be an unwillingness to create a plan to find new adopters. Program activities and practices are being disseminated across a variety of communication channels (e.g. publications, conference presentations, social media), and are sustained with institutional resources.

New innovators and adopters for this work are identified and this identification and nurturing of new adopters is recognized as important/valuable for the project.

A full propagation plan may be developed, or there are promising conversations with potential adopters, identifying the specific needs and situations of the adopter and how the innovation may address them.

Organizational leaders recognize that propagation is important and prioritize it. Program activities and practices are being disseminated, piloted, and adopted in line with a propagation plan. Innovations cater to the needs and situations of the new adopters.

New adopters are able to incorporate lessons learned (e.g. from project information resources or conversations with project personnel).

New adopters are able to further define additional lessons learned and recommendations for future adopters.

Evaluation and Learning	A formal feedback mechanism such as an advisory board or steering committee is not established. There is no evaluation plan to identify, analyze, and report on their progress and lessons learned. Data collection activities are not taking place, but may be planned for the future. Organizational learning (applying lessons learned, piloting, etc.) is not part of established practice. Goals either have not been identified OR there is no clearly articulated path toward realizing them (e.g. via a logic model or theory of change). Shifts in programming and reporting are heavily constrained by funder requirements.	A formal feedback mechanism such as an advisory board or steering committee may be established, but it is not executing its full intended purpose or meeting regularly. Recommendations are not fully implemented. There may be an evaluation plan, but it is not robust enough to identify, analyze, and report on their progress and lessons learned OR_the plan is sufficient but the project is not actively engaging in ongoing evaluation work. Data collection activities are taking place, but are not fully supported nor capturing all activities. Organizational learning (applying lessons learned, piloting, etc.) is becoming integrated into practice. Goals have been identified and there is a clearly articulated path toward realizing them (e.g. via a logic model or theory of change). Shifts in programming and reporting are possible, though may be difficult, take a relatively long time for approval, or require expending significant social capital. Formal feedback mechanisms do not help create or strengthen funder relationships.	A formal feedback mechanism such as an advisory board or steering committee has been established and functions as an important part of the program's planning and governance. Recommendations are acted upon. There is an evaluation plan to identify, analyze, and report on their progress and lessons learned and are actively engaging in ongoing evaluation work. Robust, fully supported data collection efforts. Data is collected regularly, as appropriate. Organizational learning (applying lessons learned, piloting, etc.) is part of established practice. Goals have been identified and there is a clearly articulated path toward realizing them (e.g. via a logic model or theory of change). All activities are matched to their wider goals, and there are appropriate benchmarks to measure progress. Reporting and use of funds is flexible, with emphasis on applying lessons learned. Formal feedback mechanisms help create or strengthen funder relationships.

Partnerships	Partnerships are in early stages or haven't developed strong, trusting, synergistic relationships. Expansion partners : No or few partnerships cultivated with disseminators and possible adopters. Coordination partners : No or few partnerships with other organizations to assist with or advise about project implementation and the advancement of project goals.	Partnerships are becoming stronger and identifying synergistic ways of collaborating, though they require ample support and there is still room for further development. Expansion partners: Some partnerships cultivated with disseminators and possible adopters and collaborations are planned. Coordination partners: Some partnerships cultivated with organizations that are engaging with project implementation and efforts to advance project goals. There may be limits to partners' involvement, or a need to strengthen the partnership	Partners are involved in decision-making processes, are active participants in the program's work, and have clear plans for autonomously taking on part of this work. Expansion partners: Strong partnerships cultivated with a variety of disseminators and possible adopters. Partners are actively involved in efforts to propagate innovations. Coordination partners: Strong, collaborative and supportive partnerships cultivated with organizations that are engaging with project implementation and efforts to advance project's goals. Partners are active participants in the work.
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References

Clark, T. N. (1968). Institutionalization of innovations in higher education: Four models. *Administrative Science Quarterly*, 1-25.

Durlak, J. A., & DuPre, E. P. (2008). Implementation matters: A review of research on the influence of implementation on program outcomes and the factors affecting implementation. *American Journal of Community Psychology*, 41, 327-350.

Foxe, J. (2023). NSF Eddie Bernice Johnson INCLUDES Aspire Alliance. Aspire Planning Meetings (APM) Observation Analysis. Unpublished internal report, 1-6. <u>APM meeting notes analysis report.pdf</u>

Gardner, J., Pyke, P., Schrader, C., Callahan, J.M., & Moll, A. (2008). *The party 's over: Sustaining support programs when the funding is done*. Washington, DC: American Society for Engineering Education.

Kezar, A., & Gehrke, S. (2017). Sustaining communities of practice focused on STEM reform. *The Journal of Higher Education*, *88*(3), 323-349.

Gehrke, S. & Kezar, A. (2016) STEM reform outcomes through communities of transformation. *Change: The Magazine of Higher Learning*, *48*(1), 30-38.

Kezar, A. & Gehrke, S. (2015). Communities of transformation and their work scaling STEM reform. *Pullias Center for Higher Education*.

Kezar, A. & Sam, C. (2013). Institutionalizing equitable policies and practices for contingent faculty, *The Journal of Higher Education*, *84*(1), 56-87.

Litzler, E., Claiborne, C., & Brainard, S. G. (2007). Five years later: The institutionalization and sustainability of ADVANCE. Washington, DC: American Society for Engineering Education.

Marchetti, C. E., & Dell, E., & Valentine, M. S., & Mason, S. P., & Bailey, M. B., & Crawford, D. K. (2017, June), No more duct tape! Institutionalization of ADVANCE initiatives. Paper presented at 2017 ASEE Annual Conference & Exposition, Columbus, Ohio.

Scheirer, M. A. (2008). Defining sustainability outcomes of health programs: Illustrations from an on-line survey. Evaluation and Program Planning, *31*(1), 335-346.

Stanford, C., Cole, R. S., Froyd, J. E., Friedrichsen, D., Khatri, R., & Henderson, C. (2015). Supporting sustained adoption of education innovations: The designing for sustained adoption assessment instrument. *International Journal of STEM Education*, *3*(1).