APPENDIX D

CPATH Crosswalk of Data Elements – Monitoring Survey

Data Elements of CPATH Monitoring Survey

New or Revised	Common Collection Categories	Staff and Project Participant Characteristics[i]	Project Implementation	Project Outputs [iii]
	Questions			
	1. Basic Information			
	Name of Respondent	X		
	Role on Project	X		
X	No-Cost Extension Status		X	
X	List of Faculty and Department participating in project (Name and Department)	X		
X	Likert scale questions addressing various barriers and supports to implementation.		X	

	Strongly Agree	Agree	No Opinion/Neutral	Disagree	Strongly Disagree	Not Applicable
In general, it is easy to get faculty outside the core project team to participate in grant activities.	○	○	○	○	○	○
The administrative process for approving curricular change is a significant barrier to implementing our CPATH project.	○	○	○	○	○	○
The CPATH Community website (http://www.cpath-community.msu.edu/) is a useful resource for our project.	○	○	○	○	○	○
The incentive structure for faculty (including requirements for promotion or tenure and the weight placed on course evaluations) make focusing on pedagogical reform difficult.	○	○	○	○	○	○
Overlap between research interests and program goals make it easier for faculty to devote time to project activities.	○	○	○	○	○	○

New or Revised	Common Collection Categories							Staff and Project Participant Characteristics	Project Implementation	Project Outputs
	Questions									
	Limited computing resources (i.e., a lack of hardware, software, or technical support) is an obstacle in collaborating with faculty outside traditional computing disciplines.	○	○	○	○	○	○			
	Having an evaluator is beneficial to our project.	○	○	○	○	○	○			
	2. Community Building Activities									
X	Goals of Community Building Activities: What have been the major goals of your community- or partnership-building activities? Please choose all that apply:								X	X

New or Revised	Common Collection Categories	Staff and Project Participant Characteristics	Project Implementation	Project Outputs
	Questions			
	☐To generate ideas and resources ☐To disseminate, share or scale ideas and resources ☐To understand workforce needs ☐To provide new opportunities to increase student engagement ☐Other goal(s) not listed above ☐None of the goals above are applicable to our project			
X	Questions addressing the types of organizations involved and the number of members in the community built under the CPATH award. Respondents will list individuals participating from within the institution, outside the institution, in K-12 schools, in industry, and any other groups with whom the project staff may be communicating. Each question will ask for the number of people "actively involved" and the number of departments/schools/organizations those people represent. Example (there is one box for each type of community participant): *Within your institution, how many people have been actively involved in your community- or partnership-building activities during the life of your CPATH project?* *Please enter a number. If you are unsure of the exact number, please give your best estimate. If no one from that group has been involved please enter a zero.* 		Number of people actively involved in the community	Number of departments represented by those individuals
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Higher Education Faculty and Administrators at your institution within traditional computing disciplines		
Higher Education Faculty and Administrators at your institution outside traditional computing disciplines				X	X	X

New or Revised	Common Collection Categories						Staff and Project Participant Characteristics	Project Implementation	Project Outputs
	Questions								
X	Respondents who identify themselves as having K-12 participants in their community building efforts will be asked a series of follow-up questions to better understand K-12 participation patterns: *What grade levels do the K-12 teachers and administrators represent? Please choose all that apply:* ☐ Elementary School ☐ Middle School ☐ High School *What disciplines did the K-12 teachers represent?* *Please choose all that apply:* ☐ English ☐ Social Studies ☐ Math ☐ Science ☐ Technology ☐ Other: *Please indicate your level of agreement or disagreement with each of the following statements: Please choose the appropriate response for each item:*						X	X	X

	Strongly Agree	Agree	No Opinion/Neutral	Disagree	Strongly Disagree	Not Applicable
Our partnership with K-12 schools has, or is likely, to lead to instructional changes in participating educators' classrooms.	○	○	○	○	○	○
Our partnership with K-12 schools has, or is likely, to lead to changes in their curriculum.	○	○	○	○	○	○

New or Revised	Questions	Staff and Project Participant Characteristics	Project Implementation	Project Outputs
X	**3. Areas of Project Focus - Curricular Change**		X	

New or Revised	Common Collection Categories	Staff and Project Participant Characteristics	Project Implementation	Project Outputs
	Questions			
	This section is the first in a series of questions in which if the PI answers that the area is an area of focus, they will be directed to additional questions about that type of activity. As part of your CPATH project in the fall of 2009, summer of 2010 and summer of 2010, was curricular change an area of focus? Please choose only one of the following: ◯ Yes ◯ No			
X	In which of the following CPATH project activities have you been involved at your institution? Please choose all that apply: ☐ New Course Creation ☐ Revision to Existing Courses or Development of Course Modules ☐ Development of a new program, course of study, or curricular pathway (thread or minor) ☐ New seminar or workshop series for students outside of the existing course structure ☐ Independent research projects ☐ Internship Program ☐ Other activity not listed Each box, when checked, generates additional follow-up questions related to that activity.		X	

New or Revised	Common Collection Categories		Staff and Project Participant Characteristics	Project Implementation	Project Outputs
	Questions				
X	Follow up Questions for New Course Creation/Revision to Existing Courses: Have you created new courses within traditionally computing-related disciplines (i.e., computer science, computer engineering), outside traditionally computing-related disciplines, or both? Please choose all that apply: ☐ *within traditionally computing-related disciplines (i.e., computer science, computer engineering)*? ☐ *outside* traditionally computing-related disciplines? Please list any new courses within traditionally computing-related disciplines at your institution. If there is no enrollment yet, please enter zero (0). If a course is cross-listed, please include all departments and numbers on the same line.		X	X	X

	Department	Course Number	Cumulative Enrollment in these courses during fall 2009, summer 2010, summer 2010 terms
1			
2			
3			
4			
5			

New or Revised	Common Collection Categories	Staff and Project Participant Characteristics	Project Implementation	Project Outputs
	These questions are followed by questions asking for the number of these students broken down by gender, race/ethnicity, and disability status. The follow-up questions for revision are similar but include a few more multiple choice questions about whether or not they are targeting their modules to other institutions.			
X	The remaining curricular change activity boxes, when checked, direct respondents to questions asking for short, text-box descriptions of the activity and the number of students involved in the activity.		X	

New or Revised	Common Collection Categories	Staff and Project Participant Characteristics	Project Implementation	Project Outputs
	Questions			
X	Accreditation of new courses, revised courses, or new courses of study: Did you pursue any type of accreditation for your curricular revisions or new programs? Please choose only one of the following: ◯Yes ◯No ◯Not applicable If yes, please describe the accreditation process. (Text Box)		X	
X	**4. Areas of Project Focus – Disseminating Computing Concepts**		X	

New or Revised	**Common Collection Categories** / **Questions**	Staff and Project Participant Characteristics	Project Implementation	Project Outputs
	As part of your CPATH project in the fall of 2009, summer of 2010 and summer of 2010, has disseminating computing concepts within your discipline or across disciplines been an area of focus? *Please choose only one of the following: ◯ Yes ◯ No			
X	Follow-up Questions for those listing "disseminating computing concepts" as an area of focus: What are the three most prominent concepts being disseminated? 1. 2. 3. Where have you primarily attempted to disseminate computing concepts? Please choose all that apply: ☐ Within traditional computing disciplines *within* my institution ☐ Outside traditional computing disciplines *within* my institution ☐ Within traditional computing disciplines *in other institutions* of higher education ☐ Outside traditional computing disciplines *in other institutions* of higher education ☐ K-12 schools What methods are you using to disseminate computing concepts? Please choose all that apply: ☐ Workshops ☐ Conferences ☐ List-servs ☐ Web Pages or other web-based resources ☐ Publications ☐ Courses or course modules ☐ Other:		X	X
X	**5. Areas of Project Focus – Workforce Skills**		X	

New or Revised	Common Collection Categories	Staff and Project Participant Characteristics	Project Implementation	Project Outputs
	Questions			
	As part of your CPATH project in the fall of 2009, summer of 2010 and summer of 2010, was defining or identifying skills needed in today's workplace an area of focus? *Please choose only one of the following: ○ Yes ○ No			
X	Follow-up Questions for those listing "workforce skills" as an area of focus: What are the three most relevant skills you have identified that were not already part of your academic program? 1. 2. 3. Have your findings led to changes in courses? Please choose only one of the following: ○ Yes ○ No Have your findings led to changes in pedagogical methods? Please choose only one of the following: ○ Yes ○ No		X	X
X	**6. Areas of Project Focus – Pedagogical Methods** As part of your CPATH project in fall 2009, summer 2010, and summer 2010, was the implementation of new pedagogical methods an area of		X	

New or Revised	Common Collection Categories	Staff and Project Participant Characteristics	Project Implementation	Project Outputs
	Questions			
	focus? *Please choose only one of the following: ◯ Yes ◯ No			
X	Follow-up Questions for those listing "pedagogical methods" as an area of focus: Please describe the pedagogical methods you are attempting to implement as part of your CPATH project. (Text Box) Please enter the number of faculty and graduate students implementing modified pedagogies within your institution as a result of your CPATH project. 		Faculty	Graduate Students
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Within traditional computing disciplines		
Outside traditional computing disciplines			 Please enter the number of faculty and graduate students implementing modified pedagogies outside your institution as a result of your CPATH project. Please only report for institutions that are not also CPATH grantees. 		Faculty	Graduate Students	Institutions
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Within traditional computing disciplines			
Outside traditional computing disciplines					X	X	
X	Perception of project/program outcomes: Please indicate your level of agreement or disagreement with the following statements: 		Strongly Agree	Agree	No Opinion/Neutral	Disagree	Strongly Disagree	Not Applicable
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Our CPATH project has led to the incorporation of computational thinking into courses in departments *outside* traditional computing.	◯	◯	◯	◯	◯	◯			X	X

New or Revised	Common Collection Categories							Staff and Project Participant Characteristics	Project Implementation	Project Outputs
	Questions									
	Our CPATH project has created self-sustaining, multi-sector partnerships around computing education.	○	○	○	○	○	○			
	Our CPATH project is a promising model that other institutions could adopt.	○	○	○	○	○	○			
	The CPATH program has succeeded in disseminating improved curriculum and instructional practices to the higher education community.	○	○	○	○	○	○			
	The CPATH program has helped to build national consensus regarding the knowledge and competencies students need to enter the workforce.	○	○	○	○	○	○			
	The CPATH program has had a significant influence on the national conversation surrounding undergraduate computing education.	○	○	○	○	○	○			
X	Closing questions: What is the most significant institutional challenge you have encountered in the implementation of your CPATH project?								X	

New or Revised	Common Collection Categories Questions	Staff and Project Participant Characteristics	Characteristics	Project Outputs
	(Text Box) Was there any single institutional factor (e.g., administrative support, strong industry partner in the community, etc.) you felt made your CPATH project more successful? (Text Box) If you have any additional comments you would like to make about your CPATH project, or about the CPATH program in general, please add them here. (Text Box)			

[i] Elements of these characteristics include: Name, address, date of birth, gender, ethnicity, race, disability status, class, major, grade point average, yearly fellowship or stipend amount, or project role.

[ii] Elements of these characteristics include: Sources and amount of funds, fellowships, scholarships, traineeships, partnerships, training, research methods.

[iii] Elements of these characteristics include: research findings, publications, presentations, degrees granted, educational materials.