



## Enter the Matrix: Building a Rubric for Measuring Industry Partnerships and Their Impacts

### 2019 High Impact Technology Exchange Conference (Hi-TEC)

#### The Context

To achieve outlined objectives, funded initiatives often include a goal to expand industry partnerships. These partnerships are critical to programmatic areas such as developing curriculum, arranging internship opportunities, identifying instructors, and securing equipment. Identifying instruments to appropriately measure these relationships is difficult. Indeed, a scan of the available literature reveals that within the limited available instruments designed to measure industry partnerships, most are intended to measure relationship building around technology transfer and are not focused on programmatic development (Kaklauskas et al., 2018).

In response to the dearth of appropriate measures, The Rucks Group developed the Partnership Rubric (Rucks & Clasen, 2017). Essentially, **the Partnership Rubric was designed as a tool to quantify the involvement of outside partners in a given project or center by measuring the changes in the number of partnerships and the level of involvement of those partnerships in the execution of an initiative in key areas.** While the instrument was useful in quantifying changes, a key limitation of the rubric was that it lacked validation.

Beginning in 2018, The Rucks Group and the National Science Foundation (NSF) Advanced Technological Education (ATE) Working Partners research project teams began collaborating to address this key limitation and ultimately to widen the dissemination of the tool. **As context, the Working Partners Research Project employs a mixed-methods approach to document and examine community college/industry partnership models, gain a better understanding of how these models are used in real-world situations, and gather data about impacts of partnerships.** Towards that end, initial validation efforts led to modifications of the rubric. The purpose of this document is to provide an overview of the current iteration of the Partnership Rubric.

## The Partnership Rubric

Aligning the empirical findings of the Working Partners Research Project, the domains are identified as follows:

<b>Advisory board ...</b>	service on a board for a set term to provide expertise, information, and guidance to develop, sustain, and improve the educational program.
<b>Curricular development/review ...</b>	provide occupational expertise to assist with program course and/or outcomes development review.
<b>Faculty professional development ...</b>	provides educators with occupational and industry experience and training.
<b>Incubation/ entrepreneurship ...</b>	foster and grow student or industry economic development opportunities.
<b>Instructional support ...</b>	provides support/resources for instructor-related components of the program.
<b>Program support ...</b>	provides support/resources for program sustainability or enhancement.
<b>Sponsored research ...</b>	provides topic and resources/support for research conducted at the educational institution and receives results/findings in return.
<b>Workplace-based learning ...</b>	provides an on-site opportunity for student applied learning, paid or unpaid, frequently with employment potential, often integrated with coursework.

Using the Partnership Rubric to obtain a measure of industry involvement comprises three simple steps.

**Step 1: Identify Partnership Entities.** Use of the instrument begins by engaging in discussions with the entire project team and conducting a document review to identify entities with an established or planned partnership and the role the partnership has played in the identified domains. Once identified, the entities are added to a grid on the far-left side (see Figure 1).

**Step 2: Determine level of involvement.** Decide how involved the entity was by choosing “not or minimally involved”, “somewhat involved”, or “fully involved.” A corresponding score of 0, 1, and 2, respectively, is assigned. A partnership with an entity may not have been sought in all domains, in which case that domain should be “greyed” or marked as “N/A.” Sum the actual score for each domain (see Figure 2).

**Step 3: Calculate the partnership score.** Finally, calculate the partnership score by dividing actual score by the max score.

$$\frac{\text{Actual Score}}{\text{Max Score}} = \text{Partnership Score}$$

The max score is calculated by assuming that the entity is fully involved for each domain for which involvement was sought. For instance, for the domain “Advisory Board” there are four entities who potentially would be involved. Therefore, the max involvement score is “8”, but the actual involvement score is “2.” To standardize industry involvement, take the actual score and divide by the maximum score.

Partner Involvement in Program Development Areas – Year 1									
Partner	Advisory Board	Curricular Development/ Review	Faculty Professional Development	Incubation/ Entrepreneurship	Instructional Support	Program Support	Sponsored Research	Workplace-Based Learning	
Partner A	0	0	1						
Partner B		1				1			
Partner C	0				0		1		
Partner D	1			1				0	
Partner E	1							1	
Partner F			2		0				
<b>Actual Score</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	
<b>Max Score</b>	<b>8</b>	<b>4</b>	<b>4</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>4</b>	
								%	33%
								<b>(Total Sum/Total Max)</b>	<b>(10/30)</b>

Partner Involvement in Program Development Areas – Year 2									
Partner	Advisory Board	Curricular Development/ Review	Faculty Professional Development	Incubation/ Entrepreneurship	Instructional Support	Program Support	Sponsored Research	Workplace-Based Learning	
Partner A	1	1	2						
Partner B		1				2			
Partner C	1				1		1		
Partner D	1			1				1	
Partner E	2							1	
Partner F			2		1				
<b>Actual Score</b>	<b>5</b>	<b>2</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>2</b>	
<b>Max Score</b>	<b>8</b>	<b>4</b>	<b>4</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>4</b>	
								%	63%
								<b>(Total Sum/Total Max)</b>	<b>(19/30)</b>

Partner Involvement in Program Development Areas – Year 3									
Partner	Advisory Board	Curricular Development/ Review	Faculty Professional Development	Incubation/ Entrepreneurship	Instructional Support	Program Support	Sponsored Research	Workplace-Based Learning	
Partner A	2	2	2						
Partner B		1				1			
Partner C	1				1		2		
Partner D	1			1				2	
Partner E	0							2	
Partner F			2		2				
<b>Actual Score</b>	<b>4</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>4</b>	
<b>Max Score</b>	<b>8</b>	<b>4</b>	<b>4</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>4</b>	
								%	73%
								<b>(Total Sum/Total Max)</b>	<b>(22/30)</b>

Figure 1. Example project using the partnership rubric to generate a partnership score across three years of a grant.

		Points
Involvement not requested	■	N/A
Not or minimally involved	■	0
Somewhat involved	■	1
Fully involved	■	2

Figure 2. Partnership rubric scoring legend.

Each year of the initiative partners' level of involvement are reassessed and updated. In the project example, each grant year the extent of involvement of the partnership expanded. However, this may not always be the case given that relationships can wax and wane over time. The partnership score can be presented graphically as in Figure 3.

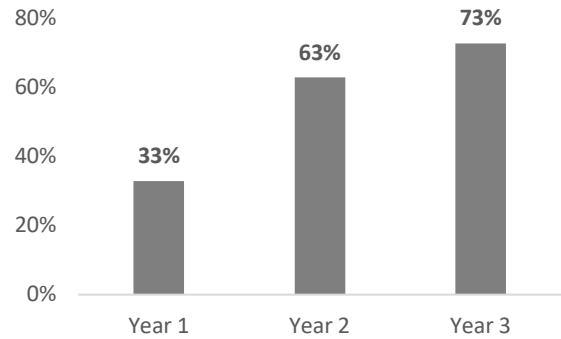


Figure 3. Example project: Changes in partnership score overtime.



### The Next Steps

The validation process is continuing, and the researchers are seeking input from a wide audience to ensure the utility and feasibility of the rubric. Validation will involve a desk review of the rubric, use of the Partnership Rubric to assess changes in partnerships by projects and centers, and interviews/focus groups with The Rucks Group team. **If you are interested in being involved in the validation process, please contact a Partnership Rubric researcher or scan the QR code.**

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### References

Kaklauskas, et al. (2018). An evaluation system, for university-industry partnership sustainability: Enhancing options for entrepreneurial universities. *Sustainability*, 10 (119), 1 – 17.

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