Science Centres and the Development of Future Science Professionals



John H. Falk Institute for Learning Innovation Oregon State University

Science centres claim to be committed to the goal of increasing the number of **Science Engaged** individuals in their community, including professionals and hobbyists.

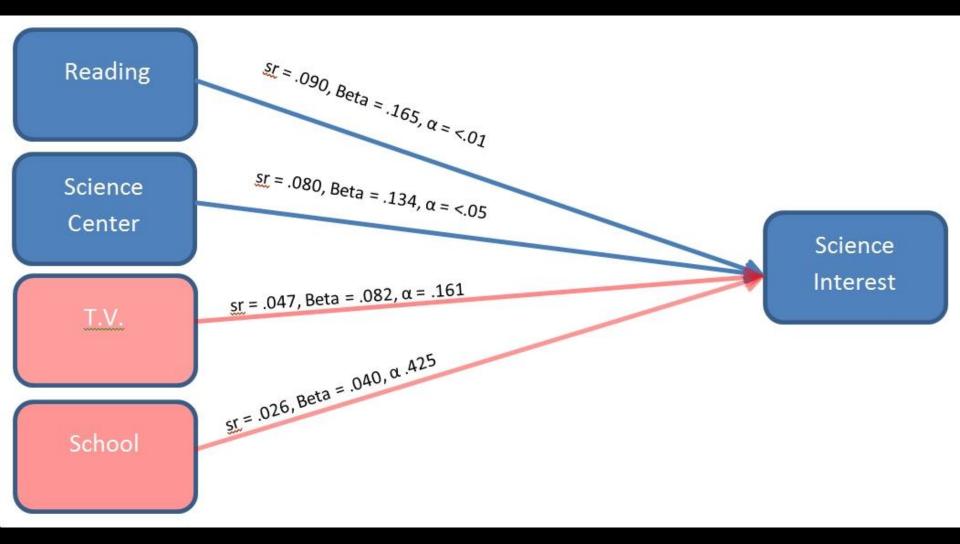
Surprisingly few efforts specifically focus on this goal and data confirm that this is currently a major limitation of science centres' impact on their communities.

MISCES – Multi-Institutional Science Center Effects Study



(Falk, Pattison, Meier, Bibas & Livingston, in press)

Adult Multiple Regression of <u>Past</u> Science Experiences on <u>Current</u> Science Interest



ISCIS – International Science Center Impact Study



(Falk, Dierking, L.D., Swanger, L., Staus, N., Back, M., Barriault, C., Catalao, C., Chambers, C., Chew, L.-L., Dahl, S.A., Falla, S., Gorecki, B., Lau, T.C., Lloyd, A., Martin, J., Santer, J., Singer, S., Solli, A., Trepanier, G., Tyystjärvi, K. & Verheyden, P., 2016)

Relationship between number of Adult previous visits and dependent scales

	Never Visited (53%)	1-2 Visits (17%)	3-10 Visits (24%)	11+ Visits (7%%)	p-value	Eta
Knowledge & Understanding	2.32	2.56	2.58	2.65	< .001	.23
Interest & Curiosity	0.05	0.16	0.25	0.33	< .001	.14
Out-of-School Engagement	3.77	4.04	4.23	4.41	< .001	.19
Science-Related Vocations	3.37	3.30	3.45	4.02	.319	.03
Science Confidence		3.77	3.83	4.10	< .001	.10

Who Does a Good Job of Supporting Career Pathways?









Science Centres Need to Proactively:



- *Stimulate Interest* in science, but also must:
- <u>Identify Talent</u> and proactively cultivate the interests and abilities of those with talent
- <u>Support Mastery</u> move beyond "One and Done" approach; need to create opportunities for development at every stage in process