Maker Competencies and the Undergraduate Curriculum

(Encouraging!) Results from a Collaborative IMLS Research Endeavor

Sarah Hutton, Head Undergraduate Teaching and Learning Services

BLC Networking Day | May 22, 2019
The Foundry

The Foundry at the Fine Arts Library
Digital Media Lab

Equipment  Sound Rooms  Virtual Reality  3D Printing

Room Reservation
Reserve a Room

DML Staffed Hours
How might academic library makerspaces impact undergraduate student learning?
MAKER COMPETENCIES

The “Maker-Literate” student:

1. Identify the need to invent, design, fabricate, build, repurpose, repair, or create a new derivative of some “thing” in order to express an idea or emotion, to solve a problem, and/or teach a concept

   1. recognize unmet needs that may be filled by making
   2. tinker and hack to learn how things are made and how they work
   3. evaluate the costs and benefits of making as an alternative to buying or hiring
   4. investigate how others have approached similar situations

(15 to choose from)
GRANT TEAM

Morgan Chivers
University of Texas at Arlington

Katie Peery
University of Texas at Arlington

Tara Radniecki
University of Nevada, Reno

Gretchen Trkay
University of Texas at Arlington

Martin Wallace
University of Texas at Arlington
PARTNER SITE LEADERS

Sarah Hutton  
University of Massachusetts Amherst

Tara Radniecki  
University of Nevada, Reno

Amy Vecchione  
Boise State University

Joe Williams  
University of North Carolina at Chapel Hill
Courses Studied @ UMass Amherst

Designing with 3D CAD & BIM

makerspace Leadership and Outreach
Our AMAZING DML Staff

Steve Acquah, DML Coordinator

Dennis Spencer, 3D Printing Supervisor

Yuntian Hu, DML Supervisor
RESULTS
Learning Happened!
..And the Makerspace Competencies..

Easy or VERY easy to map to course assignments and learning outcomes
But, Even Better..
Sweet, Delicious, OPEN CONTENT
EXPERIENTIAL LEARNING
Our goal is to establish national standards for incorporating maker literacies into cross-disciplinary, hands-on learning experiences.
Diverse Range of Lesson Plans

- Women in America: The Western Experience
- Philosophy of Science
- Designing with 3D CAD & BIM
- Makerspace Leadership and Outreach
- Children's Literature in Elementary and Middle Schools
- Planet Earth Lab
- Math, Art, and the Human Experience
- Introduction to Digital Media
- Historical Geology
- Engineering Project Management
- Spanish Culture and Civilization
- Technical Writing (Honors Section)
Next Steps
#lifegoals
Collaborative, Immersive Training
# FINAL PERFORMANCE REPORT

Please consult attached instructions when filling out this form.

<table>
<thead>
<tr>
<th>1. Federal agency and organization element to which report is submitted:</th>
<th>2. Federal award or other identifying number assigned by federal agency:</th>
</tr>
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<tbody>
<tr>
<td>Institute of Museum and Library Services</td>
<td>LG-97-17-0010-17</td>
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<th>3a. DUNS number:</th>
<th>3b. EIN/TIN:</th>
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<td>0642346100000</td>
<td>75-6000121</td>
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<tr>
<th>4. Recipient organization (name and complete address, including ZIP+4/postal code):</th>
<th>5. Recipient identifying or account number:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The University of Texas at Arlington, 701 S. Nedderman Drive, Box 19145, Arlington, TX 76019-0145</td>
<td></td>
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<tr>
<th>6a. Award period of performance start date (mo/day/yr):</th>
<th>6b. Award period of performance end date (mo/day/yr):</th>
<th>7. Reporting period end date (mo/day/yr):</th>
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<tbody>
<tr>
<td>07/01/17</td>
<td>06/30/19</td>
<td>09/28/19</td>
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<th>8. Project URLs, if any:</th>
<th>9. Report frequency:</th>
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</thead>
<tbody>
<tr>
<td><a href="https://library.uta.edu/makerliteracies">https://library.uta.edu/makerliteracies</a></td>
<td>annual semi-annual quarterly other</td>
</tr>
</tbody>
</table>

If other, describe:
Thank You!

Questions (you have 2 minutes, so think fast)?

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