# Learning Productions: Beyond Project-Based Learning

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"The craft of making physical things provides insight into the techniques of experience that can shape our dealings with others." - Richard Sennett, "The Craftsman"

"Change means growth, and growth can be painful. But we sharpen self-definition by exposing the self in work and struggle together with those whom we define as different from ourselves, although sharing the same goals." - Audre Lorde, "Age, Race, Class and Sex"

Beam Center's mission is to crystallize self-directed growth in youth through ambitious, collaborative project-making. We use old and new tools, technologies, and craft to honor the individual voice, celebrate the joy of producing something larger than ourselves, and inspire lasting wonder. Our programs support youth to take bold steps towards personally meaningful futures and foster conditions for educational equity in New York City.

In 2005, we began commissioning artists and big thinkers to design ambitious, large-scale works to be built by young people from eight to eighteen years old in the woods of New Hampshire at Beam Camp. Our premise, we thought, was simple: empower young people to make their own ideas happen by providing the experience of walking around in the brain of a designer of big projects. As captured in Richard Sennett's quote above, our

initial aim was to help young people develop capacities of resilience, resourcefulness and creative problem-solving through the challenge of physical collaboration and the application of fundamental fabrication technologies. Using screw guns, concrete, welding torches, wood, circuitry, and sewing machines, our inclusive community of youth and creative and technical experts outfits the New Hampshire forest with the infrastructure of dreams: a 30-foot Kaleidoscope, an asteroid-struck galactic Salvage Station, a gigantic pixelated teapot and spare tire, jurassic-sized land, air and water monsters, an ancient time portal and 17 more spectacular projects.

From the beginning we saw the powerful impacts that such a multi-generational, collaborative production environment could have for all involved. As reflected in Audre Lorde's quote above, we found that the young people absorbed more from working alongside adult experts than just creative and technical skills; they were liberated to consider identities, relationships and future possibilities beyond those available to them at school, home or neighborhood. The adult experts, asked to share their process and craft as guides and co-workers rather than as teachers, began to view community building as part of their creative practice.

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In our remote and provisional forest workshop, we evaluated the results of our work based on the quality and completion of our projects and the campers' ability to collaborate, use tools, and live successfully in community with peers and non-family adults.

As we began collaborating with New York City public school students, teachers and principals in 2012, we found that our evolving practice intersected with a growing demand in education and New York City more broadly to foster passion, and project-driven learning opportunities, especially in digital media, STEM, and both culturally responsive and work-based learning.

Beam Center now collaborates with over 5,000 young people per year in New York City. The vast majority (over 90%) are low-income, Black, Latinx or newly immigrated, and we serve equal numbers of young men and women, ages 7 to 20 years old.

Commonly-used terms like "project-based learning," "maker education," and "digital learning," however, tend to emphasize the importance of the tools and materials used in school-based projects but overlook the social and environmental dimensions of production in which students apply their knowledge and skill to create something and share it with others. Consequently, these terms do not adequately address the influence and impact that innovative organizations are having in their communities and through municipal partnerships. This working paper suggests a new framework—Learning Productions—as a way of better describing how this work fuels and supports young people's personal growth while creating more accessible pathways for learning in and out of the classroom.

## Why Learning Productions?

Why create a new term like Learning Productions? Many organizations use overlapping technical and/or creative disciplines to support full spectrum youth development (education and career pathways, social-emotional well-being). We imagine that they, like us, seek to more fully describe and clarify how their work aligns with the priorities of school-based educators, social service agencies, and both government and private funders, and that being thought of as a provider of "arts education," "workforce development," 'social-emotional learning," "digital literacy," "STEM/STEAM," does not accurately capture the learning, growth and opportunity youth experience in their programs.

Rather than an exercise in terminology, we find that the term Learning Productions succinctly illuminates our own core ideas. We hope this attempt to better define "what we do" invites others to ask "what does that mean?" and perhaps provide a new lens through which to see/name their own work. This Learning Productions framework is a working idea; we invite others to help us elaborate and refine the concepts further.

## What is a Learning Production?

Coined in conversation with Teachers College professor and researcher Thomas Hatch, the concept of "Learning Production" captures Beam Center's philosophy and direct work with youth and educators. We define Learning Production as an active process of learning, building, and sharing that promotes agency and growth. Learning Productions are designed to embody the knowledge and beauty of real-life creative projects as they occur in professional and artistic contexts ("in the wild") and yield tangible, functional products.

A "Learning Production" is different from other forms of "project-based learning." Learning Productions have a broader scope in terms of learning and personal growth goals. For example, project-based learning, as it is traditionally described, may not be geared to produce any social and emotional change or growth, whereas a Learning Production tries to do so explicitly, and identifies a set of roles and practices to help support these outcomes.

At Beam Center, Learning Productions take a wide range of expressions dependent on their context (school, camp, out-of-school apprenticeship), participants' prior experience working with Beam Center, age of youth, the scale of the final product, and other outcome/purpose desired by collaborators (ie., specific subject area knowledge, community showcase, etc.). The Learning Production is intended to be foundry for growth and learning. The final product or project, though a critical component, is but one condition necessary for the growth and learning to take place.

Conditions for a Learning Production include:

- Access to Production Identity - working with or doing the work of a creative/ technical expert; often combinations of multiple practices and methods
- Access to Production Environment - working in a space purpose-built or adapted for discipline-specific work
- Access to Tools and Materials - working with real tools (digital and manual) and raw materials
- Self-Directed Growth and Agency - overcoming challenges and obstacles through design and process decisions
- Collaboration and Exchange of Knowledge - making progress through shared effort, learning, and communication that recognizes individual interests and strengths
- Connections to Future Learning - identifying links between tools, materials, knowledge, skills and relevant real-world domains and possible future pursuits
- Economic and Educational Equity - validate contribution and access to Producer identity based on active participation
- Sharing of Final Product/Project

Characteristics of a Learning Production may include: access to raw materials, real tools, collaboration, and exhibition.

For Beam Center the final products of Learning Productions can range from fairly simple projects like a boombox constructed with wood and electronics over a few weeks to large-scale constructions like the Digital Poetry Project which employed a laser-cutter, Arduino coding and advanced woodworking and was constructed over several months.

See Appendix for more detailed descriptions of Learning Productions by varying levels of student agency, knowledge and collaboration

Learning productions, ideally, supply the tools to learn and a project that youth care about making, but the benefits of creating, collaborating and achieving success in a group expand beyond the physical product.

## *Learning Production Project Examples*

| **Learning Production Examples and Projects** | **Description** | **Age/Location of Students in Project Example** | **Materials Disciplines Techniques** | **Multimedia** |
|---|---|---|---|---|
| Introductory Learning Production<br><br>Boombox | Simple, repeatable project to teach "fundamental skills" Designed by instructional staff. Some limited youth customization. | Middle school, in-class<br><br>2 four-hour sessions | -Carpentry<br>-Circuitry<br>-Laser Cutter | |
| Mid-Level Learning Production<br><br>Digital Poetry | Project involves youth input and collaborative elements and is at least partially built by youth. Largely designed by instructional staff. | High school, in-class<br><br>12 90-minute sessions | -Carpentry<br>-Circuitry<br>-Twitter API<br>-Laser Cutter<br>-Raspberry Pi<br>-2D Vector Graphics | Video |
| Mid-Level Learning Production<br><br>Salvage Station | Same as above, though youth more active in building and creating in an immersive environment. | Ages 10-17, Sleepaway Camp<br><br>32 hours in the course of 3-week session | -Carpentry<br>-Metalwork<br>-Basic Construction<br>-Faux Finish Painting<br>-Circuitry<br>-Video<br>-Arduino | Online document<br><br>Video documentary |
| Hybrid of Mid-Level and Advanced Level<br><br>Watershed Cart | Project designed by instructional staff but incorporates significant elements of youth-led design and creation. | High School, out-of-school | -Metalwork<br>-Lesson Design<br>-Carpentry<br>-Teaching<br>-Classroom Management | Link to slideshow |

## Social and Emotional Growth as Outcomes

Within the Learning Production model, learning is defined as the active, physical practice of "figuring out" the knowledge, connections, vocabulary, and tactile skills required to create something from the perspective of a real-world domain. The learning goals of a Learning Production may include mastery of domain-specific and/or academic content, but its primary goals are (1) the mastery of learning as a universal lifelong practice that may be applied to any future context and (2) a sense of agency and legitimacy in pursuing future learning.

As one of our instructors put it,

> *"I didn't go into making a movie intentionally wanting to learn how to make a movie. I wanted to make a movie and learned as a means of achieving a goal."*

In short, one learns by doing, because one is motivated to "do" something of personal interest, such as making a movie. Learning productions, ideally, supply the tools to learn and a project that youth care about making, but the benefits of creating, collaborating and achieving success in a group expand beyond the physical product.

Agency allows youth to see themselves as creators, as agents who can produce amazing and complex things and make them come to life, make them become a reality.

## Learning Productions as a Model

Learning Productions promote agency and growth by setting up the opportunity for youth to make meaningful decisions together and to overcome spontaneous challenges in pursuit of a common goal. It is a way of working designed to catalyze the creativity of participating youth. This openness provides the opportunity for learners to identify as creators, to internalize new criteria for self-evaluation, to master new skills, and share their work with others.

Agency, for one, is an essential component of the model. In traditional educational contexts, much of the agency is in the hands of the educator, with youth participating as being "along for the ride". Learning Productions change this model to one of shared inquiry; both the youth and the educator are learners, figuring out to a degree how to develop the thing that is going to be created. We have witnessed at Beam that this model can have effects not only in the scope and depth of the physical artifacts that come out from the process (some of them beautiful, interesting and creative artifacts on their own) but in the motivation and engagement that they invite from youth and educators. We enjoy creating new, awesome things and being on the edge of our capacities, embarking on projects where we have no certainty of a perfect outcome. In this context, we are deeply motivated to learn the tools, physical and cognitive, that are necessary to achieve that goal; knowledge is not only not inert, it is not only situated, it is just a means to an end, just another tool. When these outcomes are successful, working artifacts, the pride and shared sense of accomplishment of a community can propel us to create more new things, and learn more.

Agency allows youth to see themselves as creators, as agents who can produce amazing and complex things and make them come to life, make them become a reality. The youth also experience the processes of complex project making, which is often illustrated in educational contexts as a predictable process, as a process of careful planning and execution. To the contrary, LPs introduce everyone in the team to the messiness of creating, to the testing, the insights, the false starts and the ideas that shift from one shape to another before becoming their final incarnation. This, we believe, prepares youth for more authentic forms of project-making and designing in their lives, to accept among other things that frustration and iteration and change are part of the process of creation, and not a "problem" that we should try to avoid.

Finally, in the context of these large challenges, youth have played with the world, worked side by side with adults, feeding and learning from their skills and developing skills of their own, practiced deep social work skills and showcased the products of their work socially to the world.

Though there may be multiple ways of making these types of productions come into being, at Beam we have come upon some elements that, after years of iteration, seem to be key components to make these projects successful: roles, environment, rules, products, celebration, and reflection.

## Elements of the Learning Productions Model

- Roles: Producer, Learner, Space Holder, Teacher
- Physical Environment
- Rules of Engagement: Mutual Respect; Open Communication; and Reciprocal Learning
- Products
- Celebration
- Reflection

### *Roles*

Principal Roles within a Learning Production are Producer and Learner. All people involved in a Learning Production display the characteristics of each role at different times regardless of age, skill level, and institutional role (e.g. student/teacher).

***Producer*** *(Creator, Maker, Artist, Agent, Mentor, Leader, Expert, Instructor, Project Master, Domain Specialist, Assistant, Guide, etc.)*
*Producers hold knowledge, skills, and history to share with others. Producers can be professionals who share their existing practice with students, non-professional lead-learners who express enthusiasm for creating the project, or both.*
***Learner*** *(Participant, Student, Camper, Assistant)*
*Learners solve problems, have ideas, and acquire knowledge and skills for the purpose of growth. Learners in a learning production can be youth or adults who take on a role and an identity within the creation of a project.*

Since Learning Productions may occur in a variety of formal and informal educational contexts, supporting roles are often necessary. These people are usually employed to care for or teach youth and sometimes, but not always, come with expertise or interest in the project. They are important gatekeepers and may work with the Producer to adapt to the learning environments.

***Space Holder*** *(Counselor, Principal, Teacher, etc.)*
*Space Holders are responsible for guaranteeing the stability of the physical and social environment surrounding the Learning Production. Space Holders may or may not be involved as Producers, but always enable the Learning Production by granting permission and providing access. Space Holders also guarantee access to bathrooms, water, and any other necessary facilities.*
***Teacher***
*In academic Learning Production contexts, Teachers serve as a mediator between Learning Production goals (e.g. experiencing growth through the production of a product) and academic learning goals (e.g. curriculum). Teachers ideally act as Producers in a Learning Production, but may also serve as external role as an evaluator and adviser.*

# Case Example: Cat Shelters (Red Hook, Brooklyn, Spring 2017)

### *Project*

Beam instructor Lizzie worked with teenagers Lucy and Anna from South Brooklyn Community High school, a transfer school. As part of a service learning project, all the students were asked to do a project that benefited their neighborhood. Three students wanted to create shelters for the many stray cats in their Red Hook neighborhood. They designed a cat shelter that they wanted to fabricate, and Lizzie worked intensively with them because they didn't know how to build it. Lizzie consulted with them, helped them improve their plan and then taught them how to use basic woodworking tools. They created a 3-story Cat Condo suitable for outdoors from wood and carpet with hand-held tools. In addition to construction, the students had to find place in the community to place the Cat Shelters. This ended up being more difficult that they had anticipated, since not everyone wants to attract stray cats. They were persistent, putting in extra time on the weekends to talk with neighborhood businesses about the project, and eventually found a home for the shelter.

Students reported significant personal growth from this project. Anna now sees herself as a future architect and was inspired to use her technical drawings in a college application portfolio. Lucy became a Beam Center Apprentice (100+ hours of intensive training on production and teaching skills), and later worked at "Arts-in-Parts" in the Rockaways, founded by Beam instructor Heather Kramer.

Anna: "I've always wanted to build stuff, but didn't know where to start. Beam gave me the tools to do it."

Lizzie: "The teacher said "These are the kids that don't show up for class," but they showed up every day for the project and worked on it well-beyond expectations, putting in extra time to finish and find a neighborhood location to place it."

### *Elements of Successful Learning Production*

Youth had a vision and were motivated to learn both technical and personal skills to execute it. They showed persistence even when some elements of the project were difficult. The process helped at least 2 students see themselves and their potential in a new light, taking steps to new directions.

### *Physical Environment*

A learning production ideally takes place in an environment that is unfamiliar to the participants. This can be a physically new location or a previously familiar environment that has been transformed by the presence of new tools, materials, organization, and Producers. The Learning Production Environment creates space and time for participants to form new identities as creators of the project. Beam Center's Learning Productions have taken place in classrooms (during and after school hours), in

dedicated labs or “making” spaces, in the woods, at our Beam Center facility and in community settings (playgrounds, gyms, libraries).

### *Rules of Engagement*

Through the process of co-producing the project, Producers and Learners exchange knowledge, wisdom, and skill and collaborate to overcome obstacles, solve problems, and design and build products. This process is made possible through reciprocal learning, radical trust and mutual respect, and open and equitable communication among learners.

### *Reciprocal Producing and Learning*

At the outset of a Learning Production, Producers introduce themselves as representatives of a domain or practice and offer this identity to Learners in exchange for their help in creating a project. This identity can be tied to a specific domain (e.g. filmmaker, sculptor, animator) or can be a unique practice that combines multiple methods (e.g. vacuum cleaner hacker and instrument designer). It is critical to the success of the Learning Production that the project is genuinely interesting and meaningful to the Producers.

### *Radical Trust and Mutual Respect*

Radical Trust is the practice of leaving space for Producers and Learners to take productive risks, make decisions, and experience growth within a Learning Production. Example from in-classroom LP: “Giving students areas of responsibility and giving them a cut list, asking them to work together to measure and check off what’s done on clipboard, and asking them to train others when necessary. Creating checklists or cutlists so students can self manage and work as teams, learn from each others mistakes.” Mutual Respect is necessary for building trust that allows for these risks and personal growth. Example from teen project leader training: “A lot of time was spent talking with students and diving deeper into their needs as well as their strengths making them more comfortable with me and each other, helping create an environment where asking for help wasn’t only accepted but encouraged.”

### *Equitable Communication*

Equitable Communication is the practice of being intentional about using language and visual cues that are clear and accessible to mixed age/gender groups

and economic, cultural and racial backgrounds. The objective of Equitable Communication is to eliminate barriers to participation for learners who may knowingly or unknowingly exclude themselves on the basis of unfamiliarity and cultural stereotypes about who has legitimate access to tools and knowledge. This concept partly exists to differentiate what Beam is doing from conventional "maker ed" approaches, which may presume that Learners know how to signal interest in a particular discipline. One outcome of a Learning Production may be the ability to signal interest.

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We cannot assume everyone has the same expectations of process, outcomes, operating procedure, safety, etc. Facilitators must establish a tone, space and time for participants to ask questions when they realize they need help. Additionally, facilitators must reflect on their language when they see participants doing things that are contrary to expected behavior; rather than respond in a tone that implies the assumed expectations are not being met, asks questions to gauge comprehension and clarifies expectations for all.

As an example two commonly misused tools for which we have learned to clearly demonstrate effective use are the push broom and rotary cutter.

Calvin, Youth Project Facilitator: "I would say, 'I need someone to sweep,' only to find youth of all ages attempting to sweep by pulling the push broom. I now make a point of referring to the 'push broom,' and demonstrating its use before I pass off. When cutting fabric, I assumed that youth could understand the simple mechanics of using a rotary cutter. 'Cut the fabric with a rotary cutter' is insufficient for effective and safe function. Often times students do not press firmly enough with enough control and want to pull the cutter back along the fabric, often getting rid of the straight edge ruler necessary for clean cutting. 'Use the ruler as a guide, make sure your arm is straight, and push away from you like you're cutting a frozen pizza,' is language that I've developed to teach these skills after repeatedly realizing the students did not understand how to meet my assumed expectations."

### *Products*

The products created in a Learning Production embody the knowledge and beauty of a real-world domain or practice and provide a tangible link between the Learner and the Producer identity. These products may take the form of physical objects, but may also include or entirely consist of time-based media or performance. Table 1 and the case examples in this paper provide more details of the products created through the learning production process.

# Case Example: Watershed Cart (Brooklyn, Summer 2017)

### *Project*

The Watershed Cart, created with Beam teen Apprentices, was a large portable cart designed to house fun and interactive games to teach younger children about NYC clean water issues and ecology. The cart was designed to be rolled into parks or playgrounds to reach children in the community. The concept of the cart was presented by Beam instructors, and teens were instantly very excited and energized about creating water games for children. They were very motivated to highlight the aspect of water play with children, which lent an opportunity to reinforce the importance of clean water that we often take for granted. The teens had to carry a huge water reservoir to Coffey Park in Red Hook, which was very heavy and created a visceral appreciation of the water itself. The games were a big hit with children in the community, lending a source of pride and accomplishment among Beam teens.
Successes
Youth had agency to build on their own interests and excitement to design games of their choice, teens, who were predominantly Black or Latino and low-income, made real and meaningful connections to neighborhood children from the low-income Red Hook area.

### *Constraints*

The actual cart was not designed by youth and the fabrication of the project was led by staff. Even though we have a relatively long apprenticeship program (15 weeks), it is often not enough time for youth to gain skills and confidence they need to fully execute the projects. Though it may feel like “design failure” when we are unable to complete an ambitious, collaborative project, we have found it a valuable prompt to reconsider how we accomplish our learning objectives for particular LP implementation; thinking of them more as steps in a longer trajectory for youth rather than having each be a self-contained scope. The Watershed example led us to re-focus the students’ work on independent projects in subsequent Apprentice implementations.

### *Celebrating and Sharing the Products*

A successful product is functional and usable by the production team. In an ideal Learning Production, the product is brought to life in a celebration in which it is shared with a community beyond the production team. In this moment of exchange, the Learner has the opportunity to represent the Producer identity to an audience and celebrate the excellence they achieved in the Learning Production. This may take the form of an exhibition or performance, but may also take the form of inviting new Learners into the Learning Production.

# Case Example: Pedal/Petal Flowers for Social Justice (Bronx, Spring 2018)

### *Project*

Pedal/Petal is an interactive sculpture in which huge flower petals with social justice messages open and close with a bike-powered mechanism. Beam Center has a long-standing relationship with Fannie Lou Hamer Freedom High School's (FLHFHS) students and faculty and have often worked with educators to design projects for students. This year was a leap as the FLHFHS student council approached Beam Center with their own project idea: a dynamic sculpture for their annual Social Justice Peace Fair. Students worked with Beam Staff to design and build the enormous sculpture which used a stationary bike to activate flying petals. After the school celebration, the work was also showcased at Emoti-con, a city-wide youth technology fair, winning the Audience Favorite award.

### *Successes*

Youth designed and led the idea generation of the project and they were supported by their school culture and Beam's direct mentoring. Built outside of a traditional classroom setting, the project offered young people a chance to create an ambitious project which was celebrated by the school community and also with a broader audience at the youth-led technology fair held at the New York Public Library, an important and impressive venue.

### *Constraints*

Due to space and equipment constraints, most of the fabrication was done at Beam Center with Beam staff. In addition, though students' envisioned the project, most did not have the technical skills to execute it on their own. "Pedal/Petal" was a collaboration between Beam Project Designer Rebecca Zakheim and a largely self-organized and ever-changing student government at a school an hour-and-a-half away from Beam Center, and done on the margins of the school schedule. To have limited the students to envisioning a project that was readily achievable while "checking all the boxes" for student learning outcomes (i.e., each student has role in design, learns to use x number of tools, participates in all steps of fabrication, etc.), would have severely reduced the project's scope. In large part, our evolving formulation of the Learning Productions framework is a way to understand how the tension of working within these kinds of constraints and towards a spectacular and unique finished product creates positive learning effects for all collaborators (youth in particular). Rebecca's zeal for realizing the students' vision, with and without their involvement, becomes part of the "producer identity" to which she is offering the students access while creating authentic collaborative dynamics and challenge.

### *Reflection and Feedback*

The practice of generating written or verbal reflection and feedback supports the development of the Producer identity and may help Learners experience an increase in legitimacy and agency toward pursuing future learning. A written narrative describing the challenges a Learner overcame during a Learning Production may also include information about crystallizing experiences that had exceptional and lasting impact for that individual, and this might bring next steps and goals into focus.

## Concluding Thoughts

We offer the idea of Learning Productions as a model that may be useful in evaluating the structure and outcomes of any hands-on project intended for youth development. It represents Beam Center's effort to account for the roles, perspectives, goals, environments, tools, materials, and skills that support the outcomes we seek by building ambitious projects with youth.

Learning productions help youth envision, create and build their own "projects," be it a physical product, a college paper, an artwork, a digital program or a positive collaboration with others. If a learning production is successful, youth learn 21st Century skills not as static assets but as tools and mindsets that can help them build the project at hand and also truly serve them in the future.

## Appendix: Learning Production Rubric

To further explore these ideas, we developed a rubric of elements we would like to see in every Learning Production, detailed in chart below. Though these ideals do not always match actual project execution, it is important to Beam Center to keep them in mind as we design, iterate and improve on our work.

Critical Attributes of Learning Productions

- Youth voice and contribution is value and encouraged
- Youth have ability to change the outcome of a project
- Emphasis on interpersonal relationships among peers and staff to build trust and communication
- True group learning and collaboration, we learn and build with each other
- Different work space and new tools can radically change power dynamics and learning results

| Beam Center Principles | Level 1 Learning Productions (e.g Afterschool, Classroom) | Mid-Level Learning Productions ft. Growth & Persistent Environment | Advanced Level Learning Productions Expressing Growth - Identity and Community (e.g. festival, school, home, public space, the future) |
|---|---|---|---|
| Theoretical Examples: | Ex: Reproducing a clock following instructions. | Ex: Becoming a clockmaker to create your own version of a clock | Ex. Inventing and manifesting a new concept of time or timekeeping. |
| Access to Production Identity | Learners are trusted by a creative professional to acquire the skills and knowledge to create real products within a relevant domain | Learners express their identity as co-producers of the project in celebration, performance, writing, or spoken word | Learners offer trust to others to acquire the skills and knowledge to create real products within a relevant domain |
| Access to Production Environment | Access to tools, materials, furniture required to create genuine products of a relevant domain | Space and time away from existing roles and identities to allow Learners to form new identities as producers of the project | Learners envision and reproduce a production environment in pursuit of self-determined or collaborative goals |
| Access to Tools and Materials | Learners learn to safely use the tools and materials associated with a real-world practice or domain that is derivative | Learners apply their knowledge of tools and materials in a prototype of their own design that is iterative | Learners demonstrate knowledge of tools and materials by sharing usable products with a community beyond the production team |
| Self-Directed Growth/Agency | Learners make guided design choices that affect the outcome of a project | Learners identify and pursue additional knowledge and support implied by the outcomes of their choices | Learners identify and pursue entry points into personally meaningful education and careers |
| Collaboration / Exchange of Knowledge | Learners create products that fit the criteria of a relevant domain | Learners collaborate to create products that synthesize their designs with the designs of others | Learners share their learning by guiding others to create products that fit the criteria of a relevant domain |
| Connections to Future Learning | Learners identify links between tools, materials, knowledge, skills and relevant real-world domains | Learners generate a personal narrative and visual documentation identifying their contributions to the learning production | Learners identify specific next steps that link the Producer identity to future learning |
| Economic and Educational Equity | Access to legitimacy and Producer identity on the basis of active participation in the Learning Production regardless of economic and academic background | Learners exercise legitimacy by representing Producer identity in the celebration and sharing of products | Learners identify how their contributions to a Learning Production and its products can be shared with institutions to provide access to future economic and educational opportunities |

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|---|---|---|---|
| Final Product/Project Examples<br><br>(Beam Center collaborates to create close to 100 individualized Learning Productions every year.) | Boombox - incorporates basic wood-working, laser cutting, electronics, systems to create a personal sound system that can be used alone or networked to make a larger system.<br><br>Photos | Book of Unknown Students I (2017)<br><br>Students (10th graders) crafted personal narrative video stories displayed on small video monitors embedded in old paper books. Participants could wear headphones to watch and listen to the video narrative. There was a "publishing party" for the community held out of school. Form of project was designed by Beam Instructor and teacher.<br><br>Photos | Book of the Unknown Students II (2018)<br><br>At the same school, the next generation of 10th grade students created a theatrical adaptation of five of the stories written for the previous year's project. The final product was a performance on the stage of the school's auditorium. Teacher suggested the form of a theater piece, but students self-managed all aspect of the production's creation in con-sultation with Beam Instructor (Jeff) and teacher. Students adapted the stories, created additional content, casted, directed and acted.<br><br>Photos |