Utah Digital Teaching & Learning Grant Program

2017 Grant Application Analysis

A SUMMARY OF KEY FINDINGS

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Executive Summary

In 2016, Utah school districts and charter schools submitted 66 grant applications to the state’s new Digital Teaching and Learning Grant Program. Applicants described their proposed projects and responded, in narrative form, to 12 key questions outlining key components of the work.

UETN commissioned an analysis of the 66 awarded grants. The goal was to summarize the applications in key areas, and develop a picture of the common and divergent aspects of this work. James Marshall Consulting, Inc. conducted this content analysis by coding applications in 10 key areas.

Key findings from our analysis include the following:

1. Of the 66 awards, 40 were school districts, 25 were charter schools or charter school systems and 1 was the Utah Schools for the Deaf and Blind. Few applicants described, or linked to, ethnicity demographics; less than half provided free/reduced lunch figures.

2. 60% of applicants employed the Future Ready assessment; 39% used the North Carolina Digital Learning Progress Rubric.

3. Projects were somewhat evenly distributed across the elementary, middle and secondary grade levels, with some projects—often charter schools—addressing multiple levels.

4. 70% of projects targeted Mathematics, while 71% targeted English/Language Arts and/or Reading.

5. Specific to outcome measures:
   - Roughly one-quarter of applications proposed measuring direct outcomes using locally designed assessments, SAGE or the Future Ready Assessment.
   - Almost 70% of applications proposed SAGE as the intermediate outcome measure; 23% employed the ACT.
   - 73% proposed SAGE as their long-term outcome measure, and 26% indicated they would use the ACT.

6. Applicants named 342 different existing software programs or services they intended to use as part of in their projects. In addition, 29 applications identified 25 additional programs they intended to procure as part of their grant-funded work.

7. Professional learning activities were most often involved targeted to teachers, followed by administrators. 38% of applicants intended to use UETN training; 31% involved USBE training; and 25% planned to leverage coaching via district instructional coaches.

8. 60% of applicants proposed at least one infrastructure upgrade.

9. Of the almost 8,000 devices applicants proposed for purchase, Chromebooks and laptops were the most popular.

10. Applicants included a Digital Citizenship component for their projects, which was, most often NetSmartz (42%) or NetSafe Utah, produced by UETN (38%).

The organization and detail required of, and provided by, applicants successfully elaborated their intentions for the grant funding.
Introduction

Background

For the past four years, Utah’s local school systems, State Board of Education (USBE), UETN, and Legislature have been working together on the best way to leverage the power of technology for learning. The result of their combined efforts is the Digital Teaching and Learning Qualifying Grant Program.

This Grant Program for Local Education Agencies (LEA’s) was created in accordance with Utah Code Section 53A-1-1501 and Utah State Board of Education (USBE) Rule R277-922. To support LEAs, the state released a grant planning template to guide applications and support responses that met the required elements for an LEA plan to be considered by the Utah State Board of Education.

Source: UETN Website
www.uen.org/digital-learning/

This Analysis Effort

In 2016, Utah school districts and charter schools submitted 66 grant applications to the state’s new Digital Teaching and Learning Grant Program. In these applications, schools and school districts described their proposed projects and responded, in narrative form, to 12 key questions. Applications averaged 50 pages in length, with some applications exceeding 80, 100 or even 200 pages (inclusive of appendices).

James Marshall Consulting, Inc. performed a content analysis to summarize the applications resulting in grant funding.

The analysis was made possible by the considerable information provided by applicants and contained within the applications. This was the result of a successful first year grant solicitation, and the guiding prompts that application provided. Our analysis, and resulting summary, was facilitated by the consistency in organization and information provided across applications, and the fact most applications were largely communicative and complete.
Analysis Goals

The analysis effort sought to:

• Provide a summary of what the applicants intend to accomplish with their funding.
• Describe how the awarded grant work will be accomplished—through key metrics that summarize hardware, software and professional development efforts.

The intent was to provide information that would:

• Allow UETN to anticipate the types of programs and related support grantees will require, so it can be responsive to those needs.
• Inform purchasing (hardware, software, professional development sources) decisions, including common needs across the state that might be served through a UETN statewide RFP process.
Methodology

Our analysis effort benefitted from an initial list, provided by UETN, that defined key areas of interest. We imported the 66 applications into qualitative analysis software (Dedoose), and established an initial set of descriptors from which to work.

We developed a draft content analysis scope by reviewing and coding 10 grant applications using the preliminary descriptor set. This initial work, and the full coding effort, employ the constant comparative method, as first defined by Glaser and Strauss. Here, a review of the first object (in this case, the grant application) serves to define key categories of interest. Those categories are applied to the next object, and a “goodness of fit” consideration is made. The set of categories is refined as needed, and the researcher returns to the first object to update and apply new attributes accordingly. The process continues until all objects are coded.

Strauss and Corbin have established key information types that can guide qualitative analysis of information. This analysis effort is employing open coding, which is defined by the authors as, "The process of breaking down, examining, comparing, conceptualizing, and categorizing data" (p. 61).

UETN provided the research team with key categories of interest. This pre-definition enabled an a priori approach, which allowed us to apply then refine these categories throughout our initial coding, then establish a final set of categories, which was subsequently reviewed and approved by UETN and related stakeholders.

As we continued to apply the constant comparative method during the analysis effort, we created relevant categories such as software programs utilized, instruments used to measure attainment of intermediate and long-term outcomes, and audiences targeted for professional development.

It must be noted that this analysis was solely dependent on the body of the grant applications. We did not consult sources beyond the applicant responses to the grant solicitation prompts. This necessarily limited our context and resulting analysis.


Overview of Inquiry Areas

UETN approved a final list of ten analysis categories, and their related descriptors, was approved by UETN in May 2017. Following this approval, we reviewed each application and coded them with the targeted descriptors. In cases where an application was vague, or failed to describe a given category, we labeled the result “inconclusive” evidence.

This summary report is organized by the ten analysis categories shown in the accompanying figure.

Each subsequent section of this report summarizes the resulting dataset representing the full set of 66 grantees.
The Digital Teaching and Learning Grant Program solicited proposals from school districts and charter schools.

Across the 66 awards:

- 40 were school districts
- 25 were charter schools or charter school systems
- 1 was the Utah Schools for the Deaf and Blind

In addition to the 66 applications that were awarded grant funds, 12 organizations applied for planning grants.

- 1 planning grant was awarded to a school district
- 11 planning grants were awarded to charter schools

Planning grant applications were not part of this analysis, given the vastly different scope of work represented in these documents.

**Grant Awards, by Organization Type**

- **School Districts**: 61%
- **Charter Schools or Systems**: 38%
- **Utah Schools for the Deaf and Blind**: 1%
Grant applications were reviewed for student population descriptions. In particular, we attempted to code for:

1. Ethnicity
2. Free/Reduced Lunch (SES)

1. Ethnicity

Because student ethnicity was not a proposal requirement, almost no applications included detailed ethnicity demographics. This information is readily available online. Requesting future applicants provide a link to their data gateways may help grant reviewers better picture local contexts.

2. Free/Reduced Lunch

Thirty-two (32) applications included Free/Reduced Lunch percentages (an indicator of socio-economic status) for the full district, or for the charter school. Specifically, 14 out of 40 school districts included this information, while 18 out of 26 charter schools included this information.

Utah Schools for the Deaf and Blind did not report free/reduced lunch.
As a condition of application, potential grantees were required to complete a readiness assessment using one of the two following tools:

- Future Ready Assessment
- North Carolina Digital Learning Progress Rubric

A review of applications indicates that districts were more likely to use Future Ready. Charter Schools were evenly split between the two assessment tools. Results of this analysis are detailed on the following page.

Interestingly, a small number of applications revisited their readiness assessments when defining Direct Outcome Measures. For these proposals, the readiness assessment served as a baseline against which they proposed to measure progress, as they updated their assessment scores at regular intervals throughout the project.

This occurrence may speak to the relevance and value teams experienced via their front-end assessment work with the readiness assessment requirement.
Readiness Assessment Breakdown by Applicant Type
(District or Charter)

- **Districts**
  - Future Ready: 29
  - Inconclusive: 11

- **Charter Schools**
  - Future Ready: 12
  - Inconclusive: 1

- **Utah Schools for the Deaf and Blind**
  - Future Ready: 1
  
**Note:** One charter school referenced both Future Ready and North Carolina readiness assessments. Because of the North Carolina reference within the readiness assessment section, it was coded as such in these figures. However, the school later named Future Ready as a direct outcome measure, stating it had conducted that assessment prior to completing the grant application.
The projects proposed in grant applications were guided by defined outcomes. This included, in most cases, targeted learning objectives that indicated the grade level focus and the discipline/subject focus.

- 46% of applications focused on a single grade span (elementary, middle or high school).
- 21% focused on two grade spans.
- 33% focused on all three grade spans.

Just under one-quarter (24%) of applications presented outcomes that in and of themselves did not specifically reference a grade level focus. For these applications, grade spans were identified by reviewing the application, beyond the outcomes, to determine focus. As a result, the accompanying figure represents the full set of applications, regardless of whether a grade span was specifically stated within the provided outcomes.
Learning objectives were also analyzed to determine subject area focus.

Mathematics, English/Language Arts, Reading, and Science were the most common subject areas targeted in grant applications.

- Roughly one-third (30%) of applications targeted a single subject area.
- 27% targeted two subject areas.
- 30% targeted three subject areas.
- 5% targeted four subject areas.
- 2% (1 application) targeted seven subject areas.

Most applications (86%) targeted Mathematics, English/Language Arts or Reading—and often a combination of these three leading elements.

Four applications were inconclusive in terms of stating a subject area target for their proposed work. These applications often described general increases in student achievement.

The following page presents the full distribution of learning objective-defined subject areas.
Learning Objective Targets

Percentage of Applications by Subject Area

- Mathematics: 70%
- English/Language Arts: 67%
- Science: 44%
- Reading: 14%
- Vague Content Areas: 6%
- History/Social Science: 2%
- STEM: 2%
- Physics: 2%
- Physical Education: 2%
- Arts: 2%
- Chemistry: 2%
- Spanish: 2%

Note: English/Language Arts and Reading were coded separately on the basis that the former encompasses all aspects of literacy, while the latter represents a more specific focus.

- 62% of applications targeted English/Language Arts or Reading.
- 9% of applications (6 proposals) targeted both ELA and Reading.
Applicants were required to describe how they would measure stated outcomes. Metrics were defined for: Direct, Intermediate and Long-term Outcomes.

Locally designed assessments were the most common direct outcome measure proposed, followed closely by SAGE. The two readiness assessments were also proposed as continued measures:

- Of the 41 using Future Ready, 14 (34%) also named it as a direct outcome measure.
- Of the 24 who employed the North Carolina readiness assessment, 3 (12%) also named it as a direct outcome measure.

In terms of the number of Direct Outcome measures employed:

- 59% proposed a single measure
- 20% proposed two measures
- 6% (4) proposed three measures

### Percentage of Applications, by Direct Outcome Measure

<table>
<thead>
<tr>
<th>Outcome Measure</th>
<th>Percentage of Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locally Designed Assessments</td>
<td>28.8</td>
</tr>
<tr>
<td>SAGE</td>
<td>25.8</td>
</tr>
<tr>
<td>Future Ready Assessment</td>
<td>22.7</td>
</tr>
<tr>
<td>Inconclusive</td>
<td>15.2</td>
</tr>
<tr>
<td>ACT Practice Tests</td>
<td>9.1</td>
</tr>
<tr>
<td>Local Survey</td>
<td>7.6</td>
</tr>
<tr>
<td>Utah Compose</td>
<td>6.1</td>
</tr>
<tr>
<td>North Carolina Readiness Tool</td>
<td>4.5</td>
</tr>
<tr>
<td>Utah Learn</td>
<td>3.0</td>
</tr>
<tr>
<td>Edivate</td>
<td>3.0</td>
</tr>
<tr>
<td>ELEOT</td>
<td>1.5</td>
</tr>
<tr>
<td>DIBELS</td>
<td>1.5</td>
</tr>
<tr>
<td>NWEA RIT</td>
<td>1.5</td>
</tr>
<tr>
<td>STAR Reading Assessment</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Percentage of Applications, by Direct Outcome Measure
Outcome Metrics

Intermediate outcomes were defined as a formative, or in-process, measures of project progress. Generally, percentages here mirrored those of the long-term outcomes responses.

SAGE and ACT were the most likely measures to be employed. A range of true formative assessments (i.e., DIBELS NWEA MAP and the STAR assessments) were also identified by a minority of applicants.

In terms of the number of measures by which intermediate outcomes were proposed to be measured:

- 72.6% proposed a single measure
- 19.7% proposed two measures
- 4.5% (2) proposed three measures
Finally, grant applications detailed the metrics by which project impact would be judged through summative evaluation. SAGE was, by far, the most frequently occurring metric, followed by the ACT.

- 83.3% of applications proposed either SAGE or the ACT as the long-term outcome measure.
  - Of these applications, 15.2% (10 applications) proposed using both SAGE and ACT.
- Of those employing SAGE, 75% employed it as a single measure; 21% employed it as one of two measures; and 4% employed it as one of three measures.
- Relative to District applicants, Charter schools were less likely to use SAGE (80.0% of Districts vs. 61.5% of Charter schools) and more likely to use alternatives like MAP, DIBELS, STAR, etc.

In terms of the number of measures by which long-term outcomes were proposed to be measured:

- 75.8% proposed a single measure
- 16.7% proposed two measures
- 3.0% (2) proposed three measures

The following page summarizes outcome measures included in grant proposals for long-term outcomes.
Outcome Metrics

Percentage of Applications, by Long-term Outcome Measure

- SAGE: 72.7%
- ACT: 25.8%
- District Benchmark Assessment: 6.1%
- NWEA MAP: 4.5%
- DIBELS: 3.0%
- Inconclusive: 3.0%
- 21st Century Skills Assessment: 1.5%
- PACE Goals: 1.5%
- Attendance Data: 1.5%
- STAR Reading Assessment: 1.5%
We also analyzed the reliance upon SAGE as a measure in each of the three outcome categories. In particular, we were interested in determining how often SAGE was being used as the sole outcome measure. The adjacent table documents findings of this analysis.

<table>
<thead>
<tr>
<th>Device</th>
<th>Direct Outcome Measures</th>
<th>Intermediate Outcome Measures</th>
<th>Long-term Outcome Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total grantees with SAGE as sole measure in category</td>
<td>9</td>
<td>31</td>
<td>36</td>
</tr>
<tr>
<td>Total grantees with SAGE plus other measures in category</td>
<td>8</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>Total grantees with other measures only in category</td>
<td>49</td>
<td>20</td>
<td>18</td>
</tr>
<tr>
<td>Total grantees with SAGE as only measure across all three categories</td>
<td></td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>
Grant proposals were required to name software programs in two categories: (1) existing programs that would contribute to the proposed grant effort; and (2) new programs to be acquired as part of the proposed grant work.

Applicants identified 342 different software programs or services within the category of existing software. Of the 342 programs, 230 were mentioned by just one grantee. Thus, 230 were unique to a single proposed program.

Those mentioned by eight or more grantees are featured in the accompanying figure. A full summary of software titles is included as an addendum to this report.

We also observed that:
• The number of existing software programs named ranged from a low of zero to a high of 71.
• Districts named an average of 13 programs.
• Charter schools named an average of 8.
Twenty-nine (29) applicants named a total of 25 different programs they intended to acquire through grant funding. In addition, they referenced non-specific software purchases.

- 18 applications named one program
- 7 applications named two programs
- 2 applications named three programs
- 1 application named four programs
- 1 application named seven programs

Charter schools were more likely than school districts to indicate plans to purchase software:
- 54% of charter schools named at least one software program they would purchase with grant funds
- 38% of school district applicants named one or more such software programs

The following page details the percentage of applicants proposing software purchases, by software program.
Software Programs

Percentage of Applications Including Software Program to be Purchased

TBN = To Be Named, and coded for applicants that did not name a specific software title for a concrete content area
In addition to naming software programs, both existing and for purchase, applicants were also required to describe the means by which the software would be monitored for fidelity of implementation.

Applicants provided a wide range of data collection strategies specific to assessing the fidelity of implementation.

- Usage data from involved software programs was the most commonly proposed metric, with almost one-quarter of applications indicating this strategy (24%).
- 18% of applications cited the Learn Platform.
- 17% of applications described assessment activity, but did not name a definitive assessment tool to fulfill this role.
Professional Learning is an important part of any change endeavor. Research has demonstrated that targeted, sustained professional learning that engages participants and is individualized to specific educator needs is a key component of successful program implementation.

Applicants were required to describe their plan to support those involved in the grant-funded programs through professional learning.

Applications were reviewed to understand who would participate in professional learning activities – by position. The majority of applications named teachers as primary beneficiaries, followed by site administrators.

### Audiences for Professional Learning Targeted by Applicants

<table>
<thead>
<tr>
<th>Audience</th>
<th>Percentage of Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers</td>
<td>62.0</td>
</tr>
<tr>
<td>Administrators</td>
<td>22.0</td>
</tr>
<tr>
<td>Support Staff</td>
<td>14.0</td>
</tr>
<tr>
<td>Teacher Leaders</td>
<td>3.0</td>
</tr>
<tr>
<td>Board Members</td>
<td>3.0</td>
</tr>
</tbody>
</table>
Interestingly, the majority of applications (58%) targeted just one audience. Typically, this audience was teachers.

A minority of applications extended the scope of their professional learning to involve multiple audiences, as presented in the accompanying figure.
Our analysis also attempted to quantify the professional learning investments in terms of the number of days dedicated to such endeavors. However, only one applicant — South Sanpete School District, who proposed five days of professional learning — clearly defined the number of professional learning days to be administered as part of the grant.

The other applications were vague in quantifying their professional learning time investments.

With regard to professional learning activities, a range of strategies were proposed by applicants. UETN and USBE training were the most commonly occurring professional learning programs. A range of vendor- or program-provided training was also described in proposals.

The figure that follows presents the range of professional learning strategies, along with the percentage of applicants that included the strategy in their proposals.
Professional Learning Programs Named in Applications

- UETN training: 57.6%
- USBE training (supported by UETN): 47.0%
- Coaching via district instructional coaches: 36.4%
- Coaching via peer mentors: 19.7%
- Vendor training: 18.2%
- CUES NUES SESC SEDC: 15.2%
- Edivate: 13.6%
- District developed Media Program: 10.6%
- Teacher elective PD: 9.1%
- Kyte: 6.1%
- PLC local developed to lead change: 4.5%
- Ed Tech Endorsement: 4.5%
- Engineering Design Cycle training BYU: 1.5%
- Observe4Success: 1.5%
- Not Specified: 1.5%
- Mastery Connect: 1.5%
- ISTE based Certification: 1.5%
- EL Education: 1.5%
- Canvas InstructureCon: 1.5%
- Brain Blast: 1.5%
- Teacher cohort 21st Century Pedagogy training: 1.5%
- Technology Integration Matrix: 1.5%

Percentage of Applications
Enhancing the technology infrastructure of Utah’s schools was a primary goal of this funding. Proposals described a range of infrastructure improvements the applicants intended to support through their grant awards.

- 60% of applicants proposed at least one infrastructure improvement.
- Various network upgrades were described by 12% of applicants, making this infrastructure work the most common across the complement of applications.
As a separate task, we quantified the number of access points to be added.

- Almost 79% of applicants expressed an intention to add access points.
- The most frequently occurring plan was to add 10 access points to networks—which was proposed by 6.1% of applicants.

<table>
<thead>
<tr>
<th>Number of Access Points to be Added</th>
<th>Percentage of Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1.5%</td>
</tr>
<tr>
<td>3</td>
<td>1.5%</td>
</tr>
<tr>
<td>4</td>
<td>1.5%</td>
</tr>
<tr>
<td>7</td>
<td>1.5%</td>
</tr>
<tr>
<td>10</td>
<td>6.1%</td>
</tr>
<tr>
<td>20</td>
<td>1.5%</td>
</tr>
<tr>
<td>48</td>
<td>1.5%</td>
</tr>
<tr>
<td>50</td>
<td>3.0%</td>
</tr>
<tr>
<td>72</td>
<td>1.5%</td>
</tr>
<tr>
<td>100</td>
<td>1.5%</td>
</tr>
<tr>
<td>No mention</td>
<td>78.8%</td>
</tr>
</tbody>
</table>
Along with enhanced infrastructure, applicants also had the opportunity to enhance the technology used in classrooms. We analyzed applications to catalog the types of devices applicants intended to purchase with their grant award.

Chromebooks were far and away the most commonly cited device applicants wanted to purchase, with 41% of applications proposing to purchase the device. Not surprisingly, Chromebook Carts were also cited.

Not all applicants proposed purchasing devices. In fact, almost 38% of applications involved no device purchase.

The bar graph documents the number of proposals in which each given type of device was mentioned for purchase.
In addition to noting the number of applications requesting to purchase devices, we attempted to tally the number of devices that would be purchased using grant funds.

This proved difficult, at times, due to lack of detailed documentation. For example, applicants spoke of “classroom sets,” but did not state a specific number. Or, they would provide a total dollar investment for the line item, but not detail the per unit cost.

For the minority of applications where specific numbers were provided, we documented the number of devices to be purchased. The accompanying table details both the number of proposals with clear device purchase figures, as well as the total number of devices across all of the proposals.

<table>
<thead>
<tr>
<th>Device</th>
<th>Total Proposals with Quantified Device Purchase</th>
<th>Total Number Devices Across all Proposals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromebook</td>
<td>13</td>
<td>6590</td>
</tr>
<tr>
<td>Chromebook Cart</td>
<td>7</td>
<td>130</td>
</tr>
<tr>
<td>Computer</td>
<td>3</td>
<td>77</td>
</tr>
<tr>
<td>Laptop</td>
<td>4</td>
<td>924</td>
</tr>
<tr>
<td>Video Carts</td>
<td>1</td>
<td>16</td>
</tr>
</tbody>
</table>
Digital Citizenship

The final area of analysis documented the digital citizenship program applicants intended to use. With the state’s investments in technology, it is important to produce thoughtful, ethical, technology-using citizens.

Given free choice for the program they would use, applicants returned a wide range of programs.

- NetSmartz and NetSafe Utah, produced by UETN, were the most commonly occurring programs.
- Districts also intended to use digital citizenship lessons they had previously produced to fulfill this need.

<table>
<thead>
<tr>
<th>Digital Citizenship Programs Proposed</th>
<th>Percentage of Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>NetSmartz</td>
<td>42.4</td>
</tr>
<tr>
<td>NetSafe Utah</td>
<td>37.8</td>
</tr>
<tr>
<td>District developed lessons</td>
<td>19.7</td>
</tr>
<tr>
<td>Inconclusive</td>
<td>15.2</td>
</tr>
<tr>
<td>Common Sense Media</td>
<td>15.2</td>
</tr>
<tr>
<td>CUES SEDC</td>
<td>10.6</td>
</tr>
<tr>
<td>District curated resources</td>
<td>3.0</td>
</tr>
<tr>
<td>School developed lessons</td>
<td>1.5</td>
</tr>
<tr>
<td>Nearpod</td>
<td>1.5</td>
</tr>
<tr>
<td>Dedicated course curriculum</td>
<td>1.5</td>
</tr>
<tr>
<td>GoGuardian</td>
<td>1.5</td>
</tr>
<tr>
<td>SmartKids</td>
<td>1.5</td>
</tr>
<tr>
<td>CIPA Assemblies</td>
<td>1.5</td>
</tr>
<tr>
<td>Nearpod</td>
<td>1.5</td>
</tr>
</tbody>
</table>
1.0 Diverse Outcome Measures

Generally, the applicants cited a diversity of outcome measures (evidenced by the 1.5% figures, representing a single grantee, for many categories of outcome measures). However, in some cases, and most notably with the use of SAGE, there was consensus among grantees.

2.0 Professional Learning

It was clear from applications that there is some confusion regarding the difference between professional learning and professional development. Future application guidance could address this concern with clear definitions, which could help calibrate responses. Most grantees did not quantify their professional learning investments (in terms of time to be dedicated, etc.), which resulted in a lack of rigor specific to professional learning activities. For example, it was difficult to confirm whether or not the professional learning work conformed to best practice in terms of targeted and sustained efforts, given the lack of specificity in terms of:

- Amount—Days and/or hours of professional learning
- Frequency—Timeframe over which professional learning activities were to occur

3.0 Level of Detail

Applications varied greatly in the amount of detail provided. At times, some grantees offered detail beyond what was requested, including lengthy narratives, and considerable appendices. Occasionally, a proposal did not provide the necessary details that would have allowed us to record and quantify the plan. The latter was often true with professional learning (days, audiences), software program grade level targets, and student/district demographics.

4.0 Application Template

Most applications were organized according to the rubric provided by the Utah State Board of Education. Many applicants actually cut-and-pasted the entire rubric document into their application, along with other existing materials. This included, for example, entire sections of charters and bylaws stating district/school mission and purpose, copies of entire contracts and policies, as well as the Readiness Assessment reports and Technology Inventory Tool Summaries. This challenged our coding effort because the content was image- rather than text-based. We hypothesized that the additional information may have also impacted close reviews for funding decisions.
Observations

5.0 Future Guidance and Template Enhancements

For future proposals, we recommend that stakeholders consider a more directed application process. This might include the following elements:

- Templates with forced choice selections for key program elements. For example, templates with pre-populated software titles and technology equipment that proposals are likely to include.
- Numeric fields where proposers can specify key metrics, such as professional learning days, number of devices, etc.

We recognize that program leadership wishes to provide maximum flexibility for localizing proposals, and directing attention to local needs. However, we believe there is an opportunity for the state to direct applicants toward research-based best practice in each area of the grant proposal, while still maintaining the flexibility to address local needs. Therefore, we recommend developing a revised template with (a) guidance toward best practices; and (b) defined fields that will allow for quick review and analysis (including comparative analysis across grant applications).

6.0 Application Focus

We observed some applications that seemed to venture far afield from the proposed request. We suggest that grant program leadership consider having applicants specify, in the Overview, how proposed funds will be used. This would make it clear at the outset what the following discussion is all about. It would also serve to determine which sections of the application are mandatory. For example, if an applicant is requesting grant money for network upgrades, perhaps they shouldn’t be required to respond to sections regarding instructional tools and professional development—or do so in a more limited fashion. We observed narratives in such cases that often seemed irrelevant.
7.0 Taxonomy for Key Investments

Program leadership should consider scaffolding application responses, and making certain that proposals detail intended investments under each of the following areas. This would facilitate review, and provide a more complete picture of how funds are to be dedicated (i.e., infrastructure, teaching and learning, administrative support, etc.).

- Software, broken down into categories to identify:
  - Curriculum related—applications (Spell this, Photoshop), content subscriptions (Houghton Mifflin), etc.
  - Administrative—LMS, Office/email, etc.

- Hardware:
  - Student devices
  - Administrative devices

- Network Infrastructure
  - Hardware
  - Software

8.0 Benefits Resulting from the Application Process

In closing, we offer an observation that goes beyond the scope of this contracted work. It is one based, in part, on data across the grant applications. Equally, we make inferences resulting from this review and a comparison to other funded project reviews and program evaluations conducted nationally for over 20 years.

Analysis of the grant applications suggests cross-organizational engagement in an intentional review and planning process. Applicants successfully convened diverse stakeholders to complete the necessary assessments and respond to findings of the same. Superintendents necessarily engaged with leaders and constituencies across their districts. Together, they contemplated challenges and solutions, and successfully presented the results of their deliberations in the grant application documents.

The result of this participatory process is, likely, 66 schools and districts with considerably more knowledge of their organizations, relative to pre-application levels. Beyond this specific grant, it is reasonable to assume that the assessment, planning and general application process will benefit any number of initiatives, and overall productive change—in addition to the grant-funded work.
Dr. James Marshall is a Professor in the Department of Educational Leadership at San Diego State University and an independent consultant to business entities and school systems. He teaches graduate-level courses in human performance technology, organizational performance, and evaluation. His large-scale research studies for federal and state government agencies have evaluated over $35M in funded projects. His client list includes Bank of America, Court TV, McGraw Hill Companies, The Princeton Review, the Transportation Security Administration, TIAA-CREF, the Corporation for Public Broadcasting and the U.S. Department of Education.

Recent engagements include the following:

- National Science Foundation – Program evaluator for $5M mobile making grant, bringing making to underserved populations to support knowledge of, interest in, and self-efficacy for, careers in STEM.

- Corporation for Public Broadcasting – Created a nationwide, technology-based professional development program to educate public broadcast, museum and library personnel nationwide. Designed and implemented a series of training programs using videoconference and webcast technology. Supported synchronous sessions with online tools, resources and instruction.

- San Diego Zoo Global – Evaluated the San Diego Zoo’s $47M Elephant Odyssey exhibit. Study examined visitor-related outcomes – including retention of animal and conservation themes, using a quasi-experimental visitor study design. Conducted past visitor studies in the areas of climate change knowledge, bus tour information retention and visitor wayfinding.

- U.S. Department of Education - Evaluator for various U.S. Department of Education grants evaluating technology-based training targeted to pre-service teachers with the goal of building capacity for classroom use of technology. Constructed assessment and survey instruments, conducted statistical analysis, lead focus groups and analyzed qualitative data. Synthesized findings into yearly reports, including recommendations for continuous program improvement.

Dr. Marshall previously served as Director of Research and Evaluation with Lightspan (now Edmentum), a leading provider of curriculum-based Language Arts and Mathematics software and Internet services for students grades K–12. Here he designed and implemented a nationwide research program to determine the program’s impact in schools and student homes. During his tenure with Lightspan, he also managed the design and development of over 20 e-learning programs.

Before joining Lightspan, Dr. Marshall held the position of Senior Consultant with Accenture, specializing in multimedia and technology-based training solutions.

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