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Multiple-Case Study of Click2SciencePD

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Executive Summary

This report summarizes document analysis and interview findings from 10 professionals involved with out-of-school time (OST) educational activities across four states. The goal of these efforts was to better understand the perspectives of individuals who have utilized Click2SciencePD (Click) professional development (PD) resources.

To better understand the OST environments participants are familiar with across locations, the report provides case descriptions that highlights commonalities across states and unique contexts within each state. Following these case descriptions, a summary of the main themes that emerged during conversations with individuals familiar with Click resources is provided. Within this summary, the report highlights participants' perceptions of Click's contributions, areas needed for improvement and recommendations for new users. The report closes with summary comments and discussion points.

Introduction

During the summer and fall of 2016, representatives from Click2SciencePD (Click) contracted with an external evaluator from the Nebraska Academy for Methodology, Analytics and Psychometrics (MAP Academy) to conduct a multiple-case study. The goal of these efforts was to better understand the perspectives of individuals who have utilized Click resources. Click is "an interactive, professional development site for trainers, coaches, site directors and frontline staff/volunteers working in out-of-school time STEM programs, serving children and youth (Click2SciencePD, n.d.).

This report summarizes interview findings and document analysis from four states using Click resources. Through the different sections of the report, we provide information on the contextual background of each state and identify the crosscutting themes that shed light on participants' experiences and perceptions of Click resources.

Methodology

Data Collection

Data sources included interviews with stakeholders and document analysis of publically available information from the Internet. Interviews lasted from 40-70 minutes and were conducted via phone or using web-conferencing technology. Interview data were recorded and reviewed to identify common themes.

Participants

Participants were recruited based on recommendations from Click staff. Click staff members served as the initial entry point for engaging in email conversations with potential interviewees. Once initial introductions had been made by Click staff, the external evaluator and graduate assistant were the only individuals involved with further recruiting and interview data collection.

A total of 10 interviews were conducted with individuals involved in out-of-school time (OST) educational activities across four states (Maine, Vermont, Iowa, and Nebraska). Three participants were interviewed from Vermont and Nebraska and two participants were interviewed from Maine and Iowa. Interviewees described their professional experience in OST education as ranging from a minimum of 3 years to more than 15 years.

Participants included stakeholders who identified themselves broadly as network or site-level representatives and professional development coach/trainers. Please note, we recognize that no one definition fits for all of our participants because most individuals have multiple responsibilities. Descriptions were primarily used for orienting interview questions and determining the area in which each individual was most experienced. Broadly speaking, network or site-level representatives were considered to be individuals who primarily focus on administrative such as determining content, coordinating trainings, and coordinating grants. In most states these individuals worked primarily with others in administrative roles and/or coach/trainers. These individuals often had less (if any) face-to-face time with frontline staff/volunteers and youth. Coach/trainers were broadly considered to be individuals who deliver professional development (PD) to frontline staff/volunteers. In most states these individuals worked with network or site-level representatives, other coach/trainers and frontline staff/volunteers. These individuals often had face-to-face time with frontline staff/volunteers and may some exposure to youth.

Research Questions

The goal of this study was to: (a) collect descriptive information about the OST context and use of Click resources across four states and (b) identify the crosscutting themes that emerge from individuals' experiences using Click resources.

Case Descriptions

In this section, we provide a description of the OST context and use of Click resources for each of the four states included in our sample. Although each state provided a unique context and application of Click resources, there was a strong overlap across context in terms of challenges. Based on this degree of overlap, we begin this section of the report by outlining the common challenges central to all of our contexts. Following our summary of the challenges central to all of our cases, we then provide a discussion of the contextual and training aspects that are unique to each state.

Please note that our contextual summaries are based on interviews with a small number of representatives from each state and information publically available on the Internet, so they may not be fully representative of the contextual setting in each state.

Common Challenges

Across all of the interviews, several common contextual challenges emerged. In the sections below, we highlight the three common challenges that shape the PD context of each state because they influence aspects such as choice of training, availability of training, and general training approaches.

Rurality. The first aspect that was apparent in discussions with various representatives was how the landscape of the state influenced the PD context. All of the states included in our sample have large rural populations, which many noted influenced "access to quality PD." Participants explained that costs related to travel for training events or conferences were large expenses on their budgets that often limit the number of PD opportunities they are able to provide for their staff. For instance, one of our participants noted that individuals may have to drive "two or more hours" to attend PD training sessions and another commented that they live "100 miles from a larger city" and even some local training activities are "over 35 miles (each way)."

Despite these "rural barriers," participants discussed the multiple methods they use to overcome these challenges. For instance, interviewees explained that they tend to rely upon on "locally available, low-cost or free PD resources" while also taking advantage of regional trainings and conferences, when available. Other aspects mentioned in discussions for overcoming rural challenges included promoting a train-the trainer-model to build more capacity and restructuring their training delivery approaches. For instance, one participant in charge of coordinating trainers observed that "most trainers don't want to go too far outside their geographic area, so what that means is that I need to have multiple trainers who have consistency around the workshops developed so we have good geographic reach. So I have three trainers that can all do X workshop and hopefully one will step up when asked to deliver a workshop in a particular area a few hours away."

Staff Experience and Turnover. Another contextual challenge faced by all of the states included in our sample was frontline staff/volunteer experience and turnover. Interviewees noted the challenge of providing quality PD when staff members have a "mix of experience levels" and a high rate of turnover. Participants mentioned that staff working in OST settings can include (but are not limited to) college students, paraprofessional educators, newly minted certified teachers, and experienced teachers. Additionally, some staff members have experience and comfort with STEM education, but the large majority are "science phobic." Given this mix of experience levels and potential anxiety towards delivering STEM content, it can be difficult to identify quality PD experiences. For instance, one interviewee noted that some staff members may need step-by-step, in-depth training, while others might just need a brush-up on certain skills.

The complexity of providing quality PD to staff members that have a variety of experience levels and needs is enhanced when there is a "revolving door" of staff turnover. "When you have a lot of staff there is obviously a lot of turnover in afterschool…so how do you build a culture of education if only a

few people are getting a deep dive" The turnover of staff was noted by one participant as a particular challenge when it comes to the transfer of knowledge with a train-the-trainer model because "it's really hard to take those PD hours and translate it for your staff who are not as engaged and may leave."

Time and Resources. The final challenge that was discussed across all participants was the struggle to find enough time and resources to provide quality PD experiences. Each participant observed that a number of factors influence the number and type of PD opportunities provided to staff, but "TIME, TIME, TIME," was the consistent challenge everyone faced. "Nobody has any time." Several participants commented it is not uncommon for staff to attend a two-hour training session after working a full school day starting at 7 am and participating in afterschool activities. Often "you have them for two hours on a weeknight after many of them have already done a ten-hour day...so it's certainly not the most ideal" training conditions.

Given that a large number of frontline staff/volunteers work multiple jobs, any PD resources provided to staff on top of an already busy workday is a challenge to plan and implement. One of the coach/trainers in our sample observed that issues related to the strain on frontline staff/volunteers' time have a direct influence on how they deliver training. Based on this individuals' experience, they noted that trainings "must be high quality and the staff must be receptive to it," and they must not be too long – "over 2 hours, and nothing will sink in."

Iowa

Contextual Background. It is important to note the two individuals from Iowa included in our sample both had connections with the organizations discussed in this section. As mentioned previously, additional resources may be available in Iowa but our participants were most knowledgeable of the sources outlined below.

Based on our sources, we found there are two large networks serving the PD needs of individuals involved in OST STEM activities in Iowa—the governor's STEM Advisory Council and the STEM Active Learning Partners group within the Iowa Afterschool Alliance. The Iowa governor's STEM advisory council – made up of leaders in higher education, business, government, and other organizations and has a goal to elevate the quality of STEM and the impact of STEM education (Iowa Governor's STEM Advisory Council, n.d.). A group from the governor's advisory council focused on informal education formed STEM Active Learning Partners, which works directly with the Iowa Afterschool Alliance to support the goals of expanding and enhancing STEM learning environments (Iowa Afterschool Alliance, n.d.). Together these two networks serve and support a variety of different institutions and organizations, including (but not limited to) before/afterschool providers, nature centers, children's museums, zoos, 4-H clubs, Boys and Girl Scouts. Interviewees estimated there are over 200 groups served through the two networks.

Interviewees noted that given the OST context and informal environment, those in the STEM Active Learning Partners network have a different agenda and needs for out-of-school STEM compared to formal in-school STEM. Interviewees mentioned high professional development needs as well as a need for stronger collaboration across the state. "There is not a lot of PD available for out-of-school time STEM education in Iowa…there are some on-line, web-based PD but we wanted to meet each other, share resources, and talk." Interviewees also mentioned the desire to make individuals "aware of the positive impact of out-of-school STEM" and the need for "a source of existing PD resources."

To meet these needs and the larger goals of their systems, interviewees discussed some of the grant support they have received. Interviewees noted that grant funding has provided the ability to address policy and communication development, provide professional development across the state and

evaluate program quality. In particular, interviewees highlighted recent funding efforts that have provided opportunities to expand PD efforts.

Training Context. Participants noted that recent funding has provided the opportunity to work with a pilot group of sites to develop an evaluation network, provide PD resources, and curricula ideas. Additionally, recent participation in the National STEM Evaluation study conducted by Partnerships in Education and Resilience (PEAR; PEAR Institute, n.d.) has helped expand these efforts to include additional sites. Lessons learned and processes developed with their pilot and recent participation in the National STEM Evaluation study have provided many opportunities to discuss PD needs. Participants noted that PD models are still being "shaped as we speak for the long-term."

When asked to describe their general PD training approach and experiences with Click, interviewees discussed a recent series of regional workshops. Although several opportunities are provided for PD across the state, interviewees highlighted these newly developed workshops because they speak to the "goal moving forward" of not "simply facilitating STEM but facilitating quality STEM." Pilot workshops were related to the Dimensions of Success (DoS) evaluation tools (Dimensions of Success, n.d.). Workshops were regionally located and conducted in a single day so individuals would not need to travel more than 90 miles. Workshops lasted for about four hours so participants could attend the workshop and complete before and after school activities. Interviewees described that prior to the workshop, attendees were asked to submit one of their STEM lesson plans they utilize a great deal. During the workshop, discussion was centered on the four broad domains of the DoS evaluation tool and provided an introduction to Click materials. A representative from Click led introductions to the Click platform and resources.

Upon completion of the workshop, participants were asked to apply the DoS planning tool to their lesson plans in order to "tweak their initial plan based on what they learned." Participants received

a $50 stipend for submitting their adjusted plan back to the workshop organizers. Both pre and post-workshop lesson plans were evaluated using a rubric developed by the workshop organizers. The rubric was designed to measure change in the quality of activities based on DoS areas. In total, about 47 participants completed the pilot workshops and more than 90% submitted revised lesson plans. Interviewees noted that lesson plans were "extremely impressive" and the results showed "simple changes can really improve the quality of a lesson".

Based on early experiences with this pilot workshop, there are plans to expand on the pilot to include more participants and regions in the up-coming years. In particular, interviewees discussed the implementation of a two-year expansion will include a replication of the initial pilot activities with an additional formal follow up session. Interviewees noted that this workshop format was a "low cost in terms of cash investment, but high cost in terms of time investment." Interviewees highlighted the ability of this type of PD approach to "make a dent in changing the quality of STEM" by facilitating STEM programming beyond the "activity mania" that "does not have a lot of value or meaning to the recipient students."

Maine

Contextual Background. We were able to speak with two individuals involved in OST STEM activities in Maine. One of these individuals holds a leadership role within the Maine Mathematics and Science Alliance (MMSA) and the other recently completed a grant-funded position in a 21st Century Community Learning Center (21st CCLC) (Maine Department of Education, n.d.; Main 21st Century Community Learning Centers, n.d.; Maine Mathematics and Science Alliance, n.d.-a). Based on participants' experiences, we focus our review of OST STEM opportunities in Maine on these organizations.

According to it's website, the MMSA "develops and applies research and best practices in Science, Technology, Engineering, and Math (STEM) education. MMSA's special strength is rooted in building relationships among schools, organizations, individuals, and communities to advance STEM education in Maine and the nation (MMSA, n.d.-b)." To accomplish this goal, MMSA supports aspects such as professional development and grant-funded projects related to STEM education. Although not as specifically STEM focused, 21st CCLC's have similar goals to provide a range of "quality services to support student learning and development" such as academic enrichment through activities such as hands-on science programs (Maine 21st Century Community Learning Centers, n.d.).

Based on interviews with participants and observations from the websites, the main difference between these two dominant players in Maine OST environments are the type of activities they focus upon. The website from Maine 21st CCLC is devoted to providing funding opportunities, curricular resources, information about meetings and other opportunities, sustainability information, and program evaluation reports (Maine 21st Century Community Learning Centers, n.d.). In contrast, the MMSA provides more focused materials and resources for STEM related OST professionals. As mentioned by the leadership representative from MMSA, the organization also focuses on "model building," so they both provide resources and actively research best practices for using these resources. For example, the MMSA recently received funding from the NOYCE Foundation for a project called Afterschool Coaching for Rural Educators in STEM (ACRES; MMSA, n.d.-c), which focuses on building a model for applying PD in rural OST environments.

Training Context. In terms of PD training, one of our participants noted that those working with 21st CCLCs often receive a number of PD opportunities from 21st CCLC consultants who work with the Maine Department of Education, grant-director level opportunities, regional PD seminars twice a year, opportunities through MMSA and Main Afterschool network partnerships as well as opportunities

through individual network partnerships with community based partners. At this individuals' 21st CCLC site they were also bringing in PD resources on an informal basis based on word of mouth and personal experiences (e.g., TED talks). In general, this individual felt "our [21st CCLCs] professional development opportunities were pretty extensive because we developed several connections with a number of organizations." One of the partnerships this individual discussed was their involvement in the MMSA's ACRES project and experience with the train-the-trainer model being implemented through the project.

Because ACRES is an on-going grant project, we can only provide detail from publically available information and broad descriptions of the training approaches discussed in our interview with the individual serving in a leadership role with ACRES. Information on the MMSA's website outlines that ACRES is a project that "provides afterschool educators in rural settings access to professional development in STEM" and the goal is for the project to reach "500 afterschool providers and 18,000 youth across Maine and at least eight other states" (MMSA, n.d.-c). Broadly speaking, our interview participant with a leadership role in the ACRES project described that the goals of their efforts were to provide "PD that is inexpensive, engaging, inexpensive, broadly serving, accessible, and high quality." A MMSA web posting related to ACRES highlights the role of Click resources in ACRES efforts (MMSA, n.d.-d). According to our participant, Click videos and resource materials have been used as a supplement to help ACRES meet their goals by build a "curriculum around coaching." ACRES efforts have focused on 6-8 Click skills chosen based on the strength of the materials provided on the Click website and areas identified for improvement either by the research team or based on DoS evaluations.

Nebraska

Contextual Background. Three participants from Nebraska were included in our sample. As we outline towards the end of this section, Nebraska is the home for Click and as such this influences some of our participants' perspectives and experiences with Click resources.

Interview participants from Nebraska discussed access to PD opportunities through organizations like Beyond School Bells (BSB; Beyond School Bells, n.d.-a) and Nebraska Extension (Nebraska Extension, n.d.-a). The mission of BSB is to "improve access to and quality of Expanded Learning Opportunities (ELOs) by building partnerships, working toward smarter state and local policy, and increasing dialogue about afterschool and summer programs powered by school-community partnerships (Beyond School Bells, n.d.-a)." The website for BSB provides users with information on STEM opportunities in Nebraska, resources for building partnerships and sustainability, videos detailing ELO programs in Nebraska, national afterschool data and policy-related information. BSB considers itself to be a "network of advocates," serving as "match-makers," and "facilitators" in the efforts to "expand access to high quality ELO experiences for Nebraska's highest need youth" (Beyond School Bells, n.d.-b). Our interview participant noted that in terms of youth served through some of BSB efforts, there is a high focus on youth in elementary and middle schools where 45% or more of youth are on free and reduced price lunch.

The other primary PD source mentioned by our interviewees was Nebraska Extension. A goal of Nebraska Extension is to provide "research-based knowledge to people through direct teaching, experiential learning opportunities and publications (Nebraska Extension, n.d.-b)." In alignment with this goal, one of the learning opportunities offered through Nebraska Extension is Click. Click is housed at the University of Nebraska-Lincoln and was developed through partnerships with Nebraska Extension and the NOYCE foundation (Click2SciencePD, n.d.). This collaboration between Nebraska Extension and Click played a central role in discussions related to the OST education context and resources utilized

for training amongst our interview participants. In particular, one interview participant worked for Nebraska Extension and the other participants readily utilized resources either directly through Extension or in partnership with BSB.

Training Context. Interviewees provided a number of examples of different PD approaches used in Nebraska, ranging from local, reoccurring short-term options to larger, regional workshops and conferences. Of the three participants from Nebraska in our sample, two were more involved in local training efforts and one was more involved at the network level. To best describe the training context in Nebraska and participants' experiences with Click, we first focus on local efforts and then follow with examples of larger, statewide efforts.

In terms of the local level, two of the participants described implementing smaller, more frequent PD training efforts when meeting with staff. One participant described local meetings as occurring 2-3 times a year (twice over fall/spring; once in summer) and lasing anywhere from 1.5-3 hours in duration. The other participant noted that for their local training efforts, they try to have two-hour long meetings in the evening about every two months. Both participants reported using a variety of resources during their training sessions such as available speakers, webinars, DoS resources, training resources from local school districts, and Nebraska Extension resources such as Click. In determining the training content for frontline staff/volunteers, participants noted content was often driven by a combination of available resources and staff needs. The two participants involved in local-level trainings had a variety of experiences with Click resources. One participant reported providing Click training to frontline staff/volunteers and the other primarily arranged for Click trainers to provide opportunities for staff at their location.

On a statewide scale, the network-level representative reported on early efforts to introduce Click resources to site directors across the state of Nebraska. This participant discussed that early funding

efforts to develop afterschool STEM systems in Nebraska led to partnerships with particular funders who highlighted the availability of resources like DoS and Click. This participant was part of early efforts with the funding agency to pilot emerging Click resources and develop efforts to use Click to "support the STEM programming they were pushing across the state." Some of the efforts to partner with Click during early pilots included providing regional half-day workshops to site directors that were led by Nebraska Extension representatives with experience with Click. Over the first two years, there were around a total of eight workshops given to site-level directors to introduce them to Click resources. According to our interview participant, the goal of introducing Click to the site-level directors was for them to take this information back to their sites for further dissemination amongst frontline staff/volunteers.

Vermont

Contextual Background. One of the three interviewees from Vermont was a network-level representative associated with Vermont Afterschool Alliance website (VAA) and the other two were closely involved in coach/training activities. Given the leadership role of the network-level VAA representative included in our sample, a large part of our summary was shaped through our interview discussion with some supplementation from sources such as the VAA website (Vermont Afterschool Alliance, n.d.-a).

According to our sources, the VAA works in partnership with the Agency of Education (State of Vermont, n.d.-a) and the Child Development division of the Vermont Department for Children and Families (Agency of Human Services, n.d.). The Agency of Education plays a role in curriculum because this group is focused on "curriculum enrichment pieces so it's not homework help, snack and recess alone…. it's all of these opportunities where STEM fits in." Both partnering organizations have a commitment to having staff with a "clear understanding of child development…who work with both

families and communities to build partnerships." Based on this model, "professional development is a very large component of our work" because our organizations are focused on the "professionalism of the setting in which the kids are operating in" and creating a "safe and nurturing environment for youth in afterschool settings." Additionally, the VAA has identified a series of Core Competencies (Vermont Afterschool Alliance, n.d.-b) that drive and structure PD training. Core competencies include: (a) child and youth development; (b) healthy and safe environments; (c) families and communities; (d) professionalism and program organization; and (e) curriculum and learning environment.

In terms of types of groups served, the VAA serves sites designated as 21st CCLCs (State of Vermont, n.d.-b), licensed afterschool providers (e.g., YMCA, Boys and Girls Club, Parks and Recreation), and private entities. Our interviewee highlighted that Vermont OST environments have an "extremely high level of kids in poverty with rural barriers," so any training approaches have to be sensitive to these aspects.

Training Context. All of our interview participants from Vermont were able to speak directly to the training activities employed within the state. Two of the three participants were directly involved in developing materials for a newly-developed STEM workshop and the other participant was responsible for planning and delivering training to staff at their location. One of our participants described themselves as the "clearing house person" for the requests for trainings delivered through VAA. According to our participant, the majority of trainings provided in Vermont through VAA are on-request where individuals send an email asking for a particular type of workshop, a trainer is identified, and the two are connected. Through this process trainers are contracted through the VAA to provide training at the requesting location.

According to our participant associated with VAA, "we [Alliance] have been working through multiple partners to try to make training as accessible as possible." Given that a large number of

trainings occur during face-to-face evening sessions, trainings are often done in multiple formats to encourage attendee engagement through "hands on, minds on" practices. This participant noted that trainings rely primarily on lecture or PowerPoint because otherwise "participants are going to fall over" because they are at the end of a full workday. Besides evening trainings, VAA offers trainings on weekends as well as through regional and state-level workshops and conferences. Regional trainings tend to be less than ideal "because these are not as convenient for the rural populations."

In terms of training experiences and participants interface with Click resources, two participants noted the use of Click resources within the VAA's professional learning communities. In particular, participants highlighted face-to-face workshops in which site directors participate in four full days of activities focused on instruction and coaching. During these workshops, direct teaching and instruction was provided and upon completion additional "coaching on their personal goals" was given throughout the year. Professional learning communities have involved different cohorts each year and are currently in their fourth year of implementation. Although STEM content has a specific strand for these learning communities, two of our interview participants highlighted that an up-coming workshop is going to change the emphasis from STEM content to focus broadly on STEM skills. This newly-developed workshop, Inquiry 101, is designed to focus on basic inquiry skills and expose site-level STEM providers to different frameworks for guiding inquiry practices in afterschool settings. Interview participants noted that various Click resources were woven into this workshop because of their emphasis on skills rather than a particular STEM content area.

While two of our participants described the broader goal of focusing on skill integration using a larger worship setting to introduce Click resources, our other participant discussed different uses of Click resources. This participant is a site-director, so they elaborated on their use of PD resources like Click in terms of providing more frequent exposure to skills during monthly coordinator meetings.

During these meetings, the goal was to provide about 30 minute of dedicated time to examine a new Click skill.

Perceptions of Click Across Cases

The first section of this report provided descriptions of the contextual environment for each of our states as well as the crosscutting contextual themes common to all states. This next section focuses on describing participants' perceptions of Click materials and resources. Perceptions of Click across cases are organized to reflect comments related to the positive contribution of Click, areas for improvement, and recommendations for new Click users.

Please note that across the various individuals we interviewed, exposure to Click and the battery of PD resources ranged from introductions to the website and initial use of one or two Click modules to more extensive integration and adaptation of Click materials into larger PD workshops. Additionally, not all participants had first-hand experience with Click, so these participants highlighted information reported to them from discussions with coach/trainers and frontline staff/volunteers.

Click Contribution

Participants involved in our interviews had numerous positive aspects to highlight regarding Click resources and materials. Based on our review of the interviews, we identified three main themes that emerged when participants discussed their perceptions of Click's contribution.

Flexibility. The first theme that emerged when reviewing participants' comments regarding Click was flexibility. Within this theme, individuals interpreted flexibility in two ways: (a) flexibility of content and (b) flexibility of the online format.

In terms of content flexibility, one participant highlighted that Click offers, "readily available training that can be accessed at any time." Click provides "direct access" to relevant material without "having to prepare stuff, it is just there." Some participants used Click materials "as is" because they felt

they were "ready to go" and others adapted materials either to better fit their learning goals or to work materials into larger workshops. For instance, a participant in a site-director role reported that individuals within their organization have used Click materials as part of staff meetings because they provide a "quick, packaged PD resource." Additionally, several individuals reported infusing Click materials within larger workshops and using materials in conjunction with other resources like DoS, because it's "easy to hook on to anybody's practice." This flexibility is "part of the beauty of it…it [Click] can be adjusted to the needs of the needs of the audience and the trainer."

Several participants commented on the flexibility of the variety of resources provided by Click. As an example, one interviewee discussed some of the constraints they have training staff in the evening after they have been working all day. They "don't want to sit and listen to someone talk for an hour!" "Click offers lots of opportunities for providing dialogue and interactive activities" to engage our audience who have been working the entire day. Based on the flexibility of materials and multiple avenues for delivering and discussing content, one interview participant remarked that "as a new trainer, Click gave me the confidence to train staff."

Interviewees also highlighted that the online availability of Click resources was especially helpful for providing PD resources to those in an OST environment. Some participants from rural communities noted that having a "flexible PD opportunity that is broadly available" was an added for meeting PD needs in rural OST contexts. One participant from a rural environment explained that they often do not have access to many resources, events may need to be relocated, and/or resources become available at the last minute, so schedules need to change to accommodate these opportunities. This individual felt Click offered a flexible tool that could be used at any time, making it adaptable to potential changes in scheduling, "if we don't use it today … we can use it tomorrow."

Utility. The second theme that emerged during review of interview discussions was utility. Within this theme there were multiple interpretations of utility in terms of value and the potential for combining Click resources with other STEM-related tools.

Several participants noted that "there is not a lot of PD available online" so Click is a "good starting place" that "fills a hole" by for providing "low cost" and "accessible online training opportunities aligned with DoS." Participants who roles were generally defined as being network and site-level representatives highlighted the cost effectiveness of Click materials, especially in conjunction with their flexibility. "Click is great" for providing organizations within the OST context with "free resources for PD training that you don't have to be onsite for." "Click empowers the site coordinator with some really targeted professional skill training tools." Participants from rural communities also noted that providing PD opportunities was often "hard to finance" given their distance from urban areas, so Click fills this need by providing a "readily available resource." An individual in a coach/trainer role noted that Click training is "a valuable service I can bring to my community, particularly in rural areas where individuals would have to travel or bring someone in." Similarly, participant in a network-level role highlighted Click "saves mileage and time."

Several participants explained that they used Click materials to "fill holes in what [frontline staff/volunteers] need" in terms of training and expanded learning opportunities. Along this idea one participant commented that Click's "best value" was as a "supplemental resource to reinforce concepts" from more extensive face-to-face PD trainings because it is "accessible and free." "It [Click] is a supplemental resource that organizations can take and incorporate into their home-site PD." One of the aspects about Click that participants viewed as a strong value was the online availability of the training materials. One participant in a coach/trainer role often uses to the online video library to "build training materials" to identify readily available "resources that are a good fit" for their particular training needs.

The focus on STEM *skills* rather than a particular STEM content area was a particular aspect discussed by many participants. Interviewees explained that focusing on skills has great value for users because Click skills are "pragmatic" and "cross-theory." For instance, several participants found that Click materials from the Asking Purposeful Questions module provided material that can be utilized with "multiple audiences regardless of experience levels." According to one participant, the Purposeful Questions modules are useful for all skill levels because it encourages "meaning making questions" that get users away from "popcorn guesses." Another participant added "you can always get better at asking purposeful questions." "It [Click] is skill based so it is easy to make it relevant because you can always deepen your skills…as opposed to a content area where once you know the content you can easily get bored." Because Click focuses on skills rather than content, it is "great for newbies and can be used for more advanced coaching as well." Another participant expanded on this idea by mentioning that the focus on skills rather than content helps their state address challenges related to staff turnover. This participant elaborated on the importance and value of focusing on the broad "skills needed in afterschool to move the needle—regardless of content."

An additional aspect that was highlighted by multiple individuals included the utility of integrating Click materials with other STEM-related tools such as DoS. Several participants also mentioned the value of the available crosswalks with Common Core State Standards (CCSS) and the Next Generation Science Standards (NGSS). Participants elaborated that Click has its greatest value and utility for them and their organization, the closer it is "aligned to DoS." As we will mention in the section reserved for participants' comments on areas for improvement, several participants felt Click would have even more value for their organization if "more explicit linkages" were made to DoS and NGSS materials.

Applicability. Another crosscutting theme that emerged during discussions on Click was applicability. Several individuals highlighted the applicability of Click materials in terms of audience and potential for using materials across multiple program areas.

Noting the lack of resources "specific to afterschool," numerous individuals commented on the applicability of Click to OST environments. One participant observed that vides are "applicable to all my staff" and especially "relevant to the afterschool community." Another mentioned that Click is "authentic to the afterschool environment because videos reflect that the afterschool world is not the same as formal ed." Given the time constraints of many afterschool staff, one participant observed that the "bite-sized pieces" offered by Click were "efficient with staff time" and especially relevant to their PD training context. Individuals elaborated on the importance of providing staff with video opportunities of other OST contexts, because "it is good for them [staff] to see other settings." Several individuals expanded on applicability to highlight the value of Click in terms of training opportunities. These individuals explained that seeing examples of other people in OST settings handling different situations was very important for opening dialogue amongst staff. The events in the videos "are not always perfect—similar to the afterschool world, so there is a chance to discuss how they [staff] would approach a situation." "Click has allowed for me to make changes in training by providing more reflective pieces…because it easier to comment on someone else's' practices."

In addition to comments related to the face validity of Click for use in OST contexts, interview participants highlighted the applicability of Click materials for use across a variety of learning contexts. One participant observed that Click is "applicable to more than just STEM" because "it's adaptable to any topic you are trying to teach." Several individuals elaborated on this idea by noting Click has "a lot of skills that apply to all of our programming." Another participant explained material like Click that is "good for science – is good for everything." Some individuals pointed out the applicability of Click for

use in contexts beyond the OST environment by explaining "Click material could easily be used by formal classroom educators."

Areas for Improvement

In addition to highlighting the flexibility, utility, and applicability of Click, stakeholders also expressed several comments regarding areas of improvement needed for Click. Although participants generally felt Click is a "great start" and "moving in the right direction," two main themes emerged during discussion related to areas of improvement. Across interviews, participants consistently mentioned changes needed to be considered for website interface and alignment to other materials.

Website Interface. The most common topic across all interviews was participants' perceptions of the website. "The website is very deep and very rich…but hard to navigate." Several participants echoed these claims by noting they often "get lost in the navigation [of the website]" and often referred to the general interface as "difficult." One participant explained that they "need some way to access certain areas quicker." Other participants reflected that struggles with the web interface may one of the reasons "we haven't used Click as much as we intended."

Some of the methods participants suggested for improvement included more accessible links to "hot topics," and reorganizing the materials to "have the experiments more easily accessible." In particular, one person recommended reorganizing the video library so there are multiple entry points for accessing materials rather than only through the skill.

Alignment to Other Materials. As mentioned in the utility section above, participants felt that Click would have more value and utility for their organization if it was more closely "aligned to DoS." Although alignment with other materials such as NGSS was mentioned by some of our participants, the majority of participants focused on alignment with DoS. Several felt that DoS and Click are "not very aligned." One participant explained that "it's a bummer it [Click] doesn't align as well with DoS"

because it leads to issues when assessing quality environments and providing targeted PD supports. "DoS says this is quality and Click says something else." Another elaborated that the lack of a "tight handshake" between the tools means "that if you do Click training it does not mean you will necessarily get better on DoS." This "is a problem if people are getting trained in a skill that isn't quite aligned with what the research is showing is a quality program."

Suggestions for New Users

One of the last questions asked during participants' interviews solicited comments and suggestions for new users of Click resources. As mentioned in previous sections, participants in our sample had a variety of experiences with Click and utilized Click resources in varying ways. Based on interview conversations, two main themes emerged regarding suggestions for new users.

Explore. Participants recommended new users investment time upfront to explore the website. Participants advocated that new users need to "set aside time to become familiar with the lessons and website." Other interview participants echoed these claims by suggesting new users to start by exploring available webinars provided by Click staff. Some participants noted they often revisit these webinars and direct other individuals to them when they have questions. Although many participants reflected that the "problem is having time to access it [Click site]," they fully encouraged new users to "take the time to immerse yourself"

Participants did offer a few words of caution in terms of initial exploration. Specifically, one interviewee cautioned that new users should "not go into it alone," especially given some of the "difficulties" they themselves faced in navigating the website. Multiple participants hinted that some of these difficulties in navigating the website might be off-putting, especially for new users. One participant remarked that it might be helpful to develop a team of individuals exploring the materials and encouraged new users to build a mini-network by "expose those in leadership positions to the site"

Experiment. The other suggestion that emerged during discussions was experimentation. Several comments were made that new users shouldn't wait to start experimenting with the site and materials. Throughout discussions participants highlighted the number of ways in which they have implemented Click materials and the lessons they learned just by trying a few out. A participant very familiar with teaching STEM content and providing coach/training sessions suggested individuals first "use materials as is" but then feel free to experiment and modify materials as you get comfortable. Given the flexibility of Click, several participants found that even the same module (e.g., Asking Purposeful Questions) could be repeated multiple times with different types of individuals and situations. Additionally, there were several recommendations for starting with the Asking Purposeful Questions module in particular because it offers so much flexibility to experiment and integrate with different training approaches.

Summary

As demonstrated by participants' observations on their experiences with Click, there are multiple ways in which Click resources are being employed across states. Individuals expressed varying experiences with Click and state-level case descriptions outlined some of the consistencies and unique aspects of the OST environments in which PD training is being implemented.

Across these diverse individuals and contexts, there were strong consistencies in their message as it relates to Click. Overall, participants did not hesitate to highlight the flexibility, utility and applicability of Click resources. They consistently elaborated on the value of having a "flexible PD opportunity that is broadly available" and "applicable to the afterschool community." Several remarked on the applicability of Click resources across multiple contexts because of the focus on skills rather than any one particular content area.

Although there was consistent praise for Click's ability to meet some of the OST communities needs for PD opportunities, participants were forthcoming that Click still "has a way to go," to "be everything they hoped it would be." In particular, almost all of the participants highlighted that the current website interface was a barrier for their access and use of Click materials. Participants referred to the website using terms like "difficult" and "confusing." Several reflected that they would be more inclined to use the site if it were easier to navigate.

A discussion point to highlight in relation to these comments in particular is that our sample of interview participants did not include any frontline staff or volunteers. Given that our experienced group of participants remarked on their "difficulty" using the website and their challenges navigating the interface, one can only assume that frontline staff/volunteers would also struggle with the Click website. When website navigation issues are then further combined with the time constraints and varying experience levels most often found with frontline staff/volunteers, it is plausible that the website may be a potential barriers hindering increased use of Click resources with this audience. Participants encouraged Click representatives to reorganize the website to help remove some of these barriers and increase potential use of resources.

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