Training Evaluation and Report

Destination Imagination Colorado (DICO) Online Team Manager Training Modules

Shanti Flaherty

Flaherty Consulting Group



## **Executive Summary**

### **Purpose**

The primary purposes for engaging in Kirkpatrick’s Four Levels of Training Evaluation over the past year was to gauge the relevance of and learners’ engagement/satisfaction with Destination Imagination Colorado’s (DICO’s) two new asynchronous training modules, determine the level of knowledge transfer from the modules to Team Managers’ (TMs) work with teams in an online environment, as well as to demonstrate the modules’ added value to key organizational results, including but not limited to:

* Providing the resources, information, and strategies Team Managers would need to work with their teams effectively in a likely unfamiliar online environment.
* Ensuring that Team Managers would return the following season to work with student teams across Colorado.
* Making sure that Team Managers followed the DI educational experience, so students would gain the skills they need to be the innovators of the future.
* All teams were able to present an appropriate solution to a Challenge at their Regional Tournament.

The FCG Evaluator, Shanti Flaherty, worked with the DICO Executive Director (ED) and multiple DICO support personnel across the state of Colorado to complete each level of Kirkpatrick’s Evaluation Model from the beginning of September 2020 through the end of September 2021. Nearly 250 DICO TMs participated in the evaluation process to provide:

* Level 1 Reaction data regarding their engagement and satisfaction with the two asynchronous learning modules.
* Level 2 Learning data regarding the knowledge they gained from the modules.
* Level 3 Behavior data regarding their ability to apply what they learned from the modules.
* Level 4 Results regarding the modules’ impact on DICO’s mission critical programs (e.g., student safety and success, Team Manager retention).

### **Summary of Key Findings**

Virtually every benchmark (outlined in the **Evaluation Goals, Purpose, Objectives & Scope** section) established by DICO’s key stakeholders (Executive Director, Board of Directors, Regional Directors, Team Managers) in cooperation with FCG evaluators met or exceeded expectations.

The majority of Level 1 Reaction data from surveys, questionnaires, and interviews demonstrated at least an 80% favorable response rate.

Level 2 data indicated that the vast majority of Team Managers completed and submitted background checks, more than 80% of responses to survey/questionnaires were correct, more than 80% of participants developed appropriate action plans, and interviews revealed that more than 80% of participants felt the training provided the skills, knowledge, and confidence needed to manage a team online.

Level 3 results were also quite promising, with 100% of Team Managers scoring proficient or advanced at demonstrating critical behaviors, a high rate of positive feelings about participation in Communities of Practice, and the vast majority of participants who attended “Wine and Wisdom” meetings received rewards in the form of verbal praise.

Level 4 results revealed both promising data and important recommendations for improving the training (discussed in the following section). Interviews with learners led FCG to conclude that the majority of Team Managers achieved the outcomes they established in their action plans. The requests for validation also contained largely positive anecdotal responses. The DICO registration site data shows that 87% of Team Managers returned to manage a team/teams for the 2021-2022 tournament season.

### **Recommendations**

Based on the quantitative and qualitative data collected during each level of evaluation, FCG would recommend that DICO take the following steps to improve the training for future use:

1. Build in live Q&A sessions, either in person or via video conferencing, several times per month for Team Managers to ask clarifying questions, to model how to facilitate certain elements of the DI experience (e.g., Instant Challenges), and provide guidance regarding how to develop to a season-long schedule.
2. Since several participants described their experience with Communities of Practice as “time consuming” or “confusing,” encourage group leaders to use multiple strategies to facilitate group discussions (e.g., use a shared discussion board throughout the month and schedule one follow-up meeting to focus on comments/questions posted on board).
3. Because 68 out of 73 participants in “Wine and Wisdom” meetings received rewards, be intentional about ensuring that *every* participant receives at least one “reward.” This will help ensure that learners do not end up feeling undervalued or unrecognized by their mentors and peers.
4. Because a relatively large number of learners indicated that they would like more information about technology and/or using technology purposefully, consider developing mini-trainings (synchronous and/or asynchronous) regarding how to use a variety of technology tools and best practices/purposes for each tool.
5. Consider emailing one to two tips, reminders, and/or key ideas to Team Managers via the DICO newsletter each month.
6. Since the majority of experienced Team Managers indicated they still prefer live, on-site trainings, add optional small group trainings when possible at the DICO office. Offering trainings at the DICO office would likely be more cost effective than renting other training spaces.

## **General Background**

### Destination Imagination Colorado (DICO) is an educational non-profit organization that focuses on providing STEAM-based, creative problem-solving opportunities/competitions for student teams in preschool through college. DICO is run almost entirely by volunteers, many of whom act as Team Managers (TMs) for teams of 2-7 students. Historically, DICO TMs and team members have worked together in person at a school-based site/after-school program site or at a TM’s home. However, due to COVID-19, the DICO Executive Director (ED), Kate Donelan, the DICO Board of Directors, and DICO Regional Directors (RDs) – through observations and informal conversations with several TMs who worked with teams online in the months of March through May of 2020 – recognized that managers would need new types of training and support to shift to working with student teams in an online environment during the 2020-2021 DICO tournament season.

Also, because DICO lost a significant amount of funding in 2020 (primarily due to the cancellation of large-scale, income-generating events during the state-wide COVID lockdown March through May of 2020) and Colorado’s strict guidelines limiting private gatherings to 10 people or less, the organization did not have the resources to pay trainers, rent training facilities, or host live training events for 50 plus TMs. Therefore, during the spring and summer of 2020, the ED in cooperation with several DICO volunteers (former board President, experienced Team Managers, Regional Directors) developed two asynchronous online training modulesfocused on providing information, strategies, and resources that TMs could use to effectively manage their teams in an online, rather than in-person, environment for the 2020-2021 DICO tournament season (September 2020 through April 2021).

## **Evaluation Goals, Purpose, Objectives & Scope**

From the beginning of September 2020 through the end of September 2021, FCG evaluators utilized Kirkpatrick’s Four Levels of Training Evaluation Model to gauge the relevance of and learners’ engagement/satisfaction with the modules, determine the level of knowledge transfer from the modules to performance goals, as well as to demonstrate the modules’ added value to key organizational results/Return on Expectations (ROE) (Kirkpatrick & Kirkpatrick, 2016).

More specifically, the evaluation process was used to:

1. reveal opportunities for making improvements to the modules that would lead to higher quality and more effective trainings that engage/meet the needs of participants; provide valuable knowledge, skills, and attitudes to transfer to online team management, and; to make positive contributions to organizational goals (e.g., maintain or increase students’ participation in DICO in most if not all nine regions).
2. ensure TMs’ transfer/implementation of critical behaviors not only lead to successful outcomes for students, but also supported DICO’s mission to prepare Colorado’s kids to be the innovators of the future.
3. highlight the ways that the trainings positively impacted and contributed to the following key DICO results and Return on Expectations (ROE) (Kirkpatrick & Kirkpatrick, 2016):
   * At least 90% of Team Managers would submit proof of a completed background check to DICO.
   * 100% of DICO Team Managers would select a grade-appropriate DI Team Challenge when they register their team(s).
   * At least 75% of Team Managers would develop and submit an action plan for working with their teams in an online environment.
   * At least 85% of registered teams would present an appropriate DI Team Challenge solution at their spring 2021 virtual regional tournament.
   * At least 85% of Team Managers would return to manage one or more teams during the 2021-2022 DICO season.

**Table 1**

**Training Description, Objectives, and Topics**

| **Description** | **Learning Objectives** | **Topics** |
| --- | --- | --- |
| **Module 1**  DICO Team Manager Training: Getting Started with Your Team | | |
| This is the first module TMs received access to, in September of 2020 . The module was meant to ground TMs in the DI educational experience, ensure that TMs completed and submitted background checks, and that TMs were provided with strategies and resources to start working with their teams in an online, rather in-person, environment. | * TMs can *identify* five principles of the Destination Imagination (DI) educational experience: Ultimate Learner Ownership, Resource Awareness, Clarifying Questions, Authentic Self-Expression, Rapid Ideation and Implementation. * TMs can *use* principles of the DI educational experience to effectively manage their teams. * TMs can *submit* proof of a completed background check prior to meeting with their teams. * TMs can *select* multiple strategies to effectively manage their teams in an online environment (e.g., build team culture, develop collaboration skills, use technology purposefully, create a virtual presence, etc.). * TMs can *use* multiple strategies to effectively manage their teams in an online environment. | * the five principles of the DI educational experience * how to complete and submit a background check to DICO * strategies and information for effectively managing a DICO team online (Challenge previews, engagement, structure, planning, technology, brainstorming, teamwork, staying on task, feedback, interference) * developing an action plan and team schedule for the first month of team meetings |
| **Module 2**  DICO Team Manager Training: Key Information, Resources, and Management Strategies | | |
| The second module was made available to TMs in December of 2020. Its purpose was to relay critical information and resources that TMs would need to support their team’s development of an appropriate Challenge solution to be presented at the team’s regional tournament. The module also provided more detailed strategies for creating community, collaboration, and a team schedule, along with methods TMs could use to help team members establish, reflect on, and revise team goals. | * TMs can *identify* the seven DI Challenge types: Technical, Scientific, Fine Arts, Service Learning, Rising Stars, Engineering, Improvisational. * TMs can *describe* the focus and requirements of the seven 2020-2021 DI Challenges. * TMs can *select* a feasible and grade-appropriate 2020-2021 Team Challenge when they register their teams. * TMs can *identify* important dates/deadlines for the 2020-2021 DI competition season. * TMs can work with team members to *create* a 2020-2021 schedule that includes important dates/deadlines for the 2020-2021 DI competition season. * TMs can *identify* foundational TM resources. * TMs can *explain* the purpose of foundational TM resources. * TMs can *use* foundational resources to effectively manage their teams in an online environment. | * Challenge criteria * important dates and deadlines (clarifications, regional tournament, state tournament) * key resources (Rules of the Road, First Look, Instant Challenge, Materials and Usage) * working with students to create community, collaboration, and a schedule for the season * establishing, reflecting on, and revising short and long-term team goals * creating a timeline with key dates, deadlines, and actions for developing and presenting an appropriate team solution |

**Target Audience**

**Learners.** The target learners for the training were new and experienced volunteer Team Managers who worked with teams of pre-K through university students in the nine competitive DICO regions: Cherry Creek, Denver, Jeffco, NoCo Canyon, South Metro, North Metro, Southwest, Spicy South, and Western Slope. TMs’ professional backgrounds and experience with technology varied widely. Approximately 25% of TMs were classroom teachers, 30% were stay-at-home parents/guardians, and 40% were parents/guardians working remotely or at an office. In rare instances (perhaps 5% of the time), an older sibling in high school or a post-secondary program served as a TM for a younger sibling and their teammates. Essentially, these statistics indicated that only one fourth of TMs had extensive training and/or experience managing and working with groups of students, which is why it was imperative that the modules provided multiple strategies for working with team members, particularly in what may have been an unfamiliar and/or uncomfortable, online environment.

There were 423 TMs/teams that participated in Destination Imagination during the 2020-2021 season. According to DICO’s website analytics, approximately 250 TMs accessed and completed the DICO modules, which were designed to allow for learners to access/complete each module at a time, place, and pace that worked best for them.

**Clients.** The primary clients were DICO’s Executive Director, Kate Donelan, and the DICO Board of Directors (nine members). FCG evaluators worked most closely with the ED during all levels of the evaluation process, as one of her primary responsibilities is to identify and address the needs of all other stakeholders and program participants, as well as to coordinate with Destination Imagination, Inc. to ensure the program is implemented with fidelity in the state of Colorado.

In addition to the ED, FCG evaluators also provided the DICO Board of Directors with the evaluation report since they are responsible for approving the release of funds to support all DICO initiatives, including professional development (i.e., Team Manager training, support, and resources).

**Additional Stakeholders.** Regional and Co-Regional Directors (RDs) were included in Levels 3 and 4 of the evaluation, as they are primary points of contact for Team Managers, the main disseminators and communicators of DICO resources and information, as well as facilitators for DICO tournaments and other events (i.e., regional trainings and Team Manager support groups). During the evaluation process, FCG evaluators worked with RDs across all nine DICO regions to collect data regarding TMs Level 3 Behaviors, which RDs obtained by monitoring TM action plans, timelines, and team meetings. They also provided reinforcement, encouragement, and rewards to TMs regarding their use of critical behaviors (Kirkpatrick & Kirkpatrick, 2016). RDs also attended the evaluation report presentation, along with the ED and Board of Directors.

DICO’s Regional Challenge Masters (RCMs), Challenge Masters (CMs), and the other Challenge judges were also part of the evaluation process, as they were in a unique position to observe TMs’ behaviors during the regional and state DICO tournaments and able to supply FCG evaluators with data (tournament score sheets) regarding teams’ ability to present appropriate Challenge solutions and complete Instant Challenges at those tournaments.

**Table 2   
Stakeholders and Evaluation Mapping**

|  |  |  |  |
| --- | --- | --- | --- |
| Reaction to Instruction  Level 1 | Learning of Content  Level 2 | Behavior on Job  Level 3 | Results of Training Level 4 |
| * Team Managers (Learners) * Executive Director * Regional Directors * FCG Evaluator(s) | * Team Managers * Executive Director * FCG Evaluator(s) | * Team Managers * Team Members and their Families * Executive Director * Regional Directors * RCMs, CMs, and other Challenge judges * FCG Evaluator(s) | * Executive Director * Regional Directors * DICO Board of Directors * FCG Evaluator(s) |

## **Evaluation Process**

**Description**

Prior to engaging in Kirkpatrick’s Four Levels of Evaluation (2006, 2016) for DICO’s asynchronous training modules, FCG evaluators met with DICO stakeholders (ED, Board of Directors, RDs) to first discuss and identify the organization’s desired results, then develop personalized leading indicators that would most contribute to those results.

* For the sake of safety and compliance with state regulations for individuals who work with students, a high rate of Team Manager background check completion and submission to DICO was expected (at least 90%).
* To ensure Team Managers felt they had the resources necessary to start and continue working with teams online, a high level of Team Manager engagement and satisfaction with the modules was expected (at least 80%).
* For the purpose of sustaining the organization’s mission and vision, it was essential to have low Team Manager turnover from the 2020-2021 season to the 2021-2022 season (15% or less).
* To ensure team members were engaged in the DI educational experience and were able to present and appropriate solution to a Challenge at the Regional Tournament, it was necessary for Team Managers to have a high level of confidence in their ability to manage a team/teams online (at least 80%).

During the first two weeks of the evaluation process (*see “Timeline”*), FCG used the information from stakeholder interviews to create a Level 1 (Reaction) and Level 2 (Learning) Blended Evaluation® Survey and Questionnaire, which was added to the last slide of each module as a link. This approach allowed us to collect initial data for both levels with a single instrument. To ensure we were able to collect a sufficient amount of evidence that TMs gained the Level 2 skills and knowledge they would need to effectively work with teams in an online environment, an action plan and scenarios were also embedded into the modules as summative and formative measures. For accessibility, all instruments were created with accessible font type (Calibri), size (12 pt.), and color (black), and alt text was provided for clickable images/content (e.g., scale descriptors/numbers, check boxes, blank schedule).

During weeks two through twelve (*see “Timeline”*), FCG used Qualtrics XM to collect and analyze survey/questionnaire data and worked with the ED to access and use the DICO LMS for collection and analysis of participants’ action plan and scenario responses.

Utilizing multiple and blended instruments supported our ability to develop relevant follow-up interview questions for both Level 1 and Level 2, during weeks four through twelve (*see “Timeline”*). During weeks eight through sixteen (*see “Timeline”*), FCG scheduled individual and focus group interviews with the help of the ED. FCG evaluators also conducted interviews with participants during this time period. For accessibility, the option to be interviewed via video conference or email was offered. In both instances, interview questions were provided to participants in an ADA compliant Word document using accessible font type, size, and color.

The data collected during weeks two through sixteen was imperative for developing a Level 3 (Behavior) Action Plan Observation and Self-Reflection form focused on critical behaviors that Team Managers would need not only to achieve the outcomes they personally hoped to achieve (noted in Level 2 Action Plans), but also key DICO outcomes. Additionally, Communities of Practice were established and Guiding Questions provided to group leaders (experienced TMs) and participants (newer TMs) for the purpose of providing encouragement. DICO’s well-established and popular “Wine and Wisdom” nights were used to reward TMs.

During weeks eight through twenty-four (*see “Timeline”*)RDs or regional support personnel used the aforementioned form to observe TMs during live or recorded team meetings, once or twice per month. TMs used the same form to reflect on their own behaviors. Then, the RDs/support personnel who were assigned to work with specific TMs would schedule a monthly meeting to compare, contrast, and discuss observations/self-reflections. This allowed RDs/support personnel to provide “on-the-job-training,” provide relevant refreshers, and to answer clarifying questions for TMs. Communities of Practice met at least once per month, and because an experienced TM was grouped with less experienced or completely new TMs there was a built-in opportunity for mentoring/coaching. “Wine and Wisdom” nights were held once per month and used as a forum to provide verbal or written praise to TMs for performing critical behaviors. Accessibility considerations included forms, guiding questions, and rewards in ADA compliant Word documents created with accessible font type, size, and color. Communities of Practice had the option to meet in person, via video conferencing tool, and/or use a collaborative board to share and respond to ideas.

FCG Evaluators requested that RDs/support personnel and TMs who were willing to share completed observation/self-reflection forms to email the forms to FCG directly for analysis. FCG worked with the ED to schedule and conduct interviews with Community of Practice leaders and “Wine and Wisdom” facilitators regarding their experiences, observations, and the value of using verbal/written rewards.

During weeks twenty-six through fifty-two (*see “Timeline”*), FCG evaluators worked with the ED to collect Level 4 data by scheduling and conducting individual/focus group interviews with other key stakeholders (RDs/support personnel, experienced TMs, facilitators) regarding observations/self-reflections, Community of Practice experiences, and “Wine and Wisdom” rewards, which allowed us to determine the level to which learners engaged in critical behaviors related to key organizational outcomes. FCG also worked with the ED to email and ask for responses to a Request for Validation letter. The requests for validation served two purposes: to obtain data we could use to correlate outcomes to training and to attain historical comparison data from experienced TMs about past live trainings versus the new asynchronous training modules (Kirkpatrick & Kirkpatrick, 2016). The final element of the Level 4 evaluation was accessing the DICO team registration site to determine the percent of TMs who returned to manage a team/teams the following 2021-2022 season. Accessibility was addressed by providing the option for interviews to be conducted orally (by phone, video conference, or in person) or via email. Emailed interview questions were written with accessible font type, size, and color. The Request for Validation Letter was also written with accessible font type, size, and color.

It is worth noting that there was a good deal of overlap within the timeline to develop the instruments as well as to collect data. This overlap was meant to account for the fact that TMs completed the training over time/at different times, depending on when TMs registered their teams (September 2020 – November 2020) and allowed us to keep the evaluation moving forward by analyzing data as it was received. As support for this approach, Kirkpatrick and Kirkpatrick (2016) note that data analysis and reporting is best treated as “an ongoing process that occurs throughout program implementation, not a discrete activity that occurs at the end of the process” (p. 118).

**Timeline**

**Measurement Instruments, Descriptions, and Data Collection**

Table 3 lists and describes the evaluation instruments used for each level of evaluation, each instrument’s purpose, how the instrument will be administered, how data will be collected, and the criteria for success related to each instrument.

**Table 3**

**Levels 1-4 Evaluation Instruments**

| Level(s) and Instrument(s) | How was it Designed? | Rationale for Instrument? | How will this be Administered? | How will the Data be Collected? |
| --- | --- | --- | --- | --- |
| **Levels 1 – 2**  Module 1: Level 1 and Level 2 Survey and Questionnaire  (see **Appendix A)**  Module 1: Level 1 and Level 2 Survey and Questionnaire  (see **Appendix B**) | Uses a Blended Evaluation® Approach (Kirkpatrick & Kirkpatrick, 2016, p. 95) to measure Level 1 (Reaction) and Level 2 (Learning) within a single evaluation instrument.  Divided into Part I (Level 1) and Part II (Level 2) for ease of data collection and coding/ analyzing responses related to each level.  Response options are 1-4 Likert Scale, YES/NO, fill-in-the-blank, and open-ended questions.  ACCESSIBILITY: Created with accessible font type (Calibri), size (12 pt.), and color (black). Alt text is provided for clickable images/content (e.g., scale descriptors/numbers). | According to Kirkpatrick and Kirkpatrick (2016), a Blended Evaluation® Approach (p. 95) will “maximize data while minimizing resources on the part of” FCG Evaluator(s) and TMs (p. 95).  The variety of question types will allow for the collection of both quantitative and qualitative data related to Level 1 and Level 2 evaluation. | The survey and questionnaire link will be attached to the last slide of Module 1 and Module 2. Participants complete and submit the evaluation within two weeks of completing the module, rather than immediately upon completion, to more accurately gauge the quality of the modules after TMs have an opportunity to reflect on their experiences and apply concepts from the modules. | Survey/questionnaire data will be collected by FCG using Qualtrics XM.  All responses will be anonymous. However, each participant will be assigned a different code/ identifier for the purpose of tracking, comparing, and contrasting data across multiple levels.  Success Criteria:  For Part I of the survey and questionnaire, an 80% satisfaction score (quantitative and qualitative responses) will be considered successful.  For Part II of the survey and questionnaire, an 80% correct and favorable response rate will be considered successful to demonstrate learners gained the knowledge, skills, and confidence to manage their DICO teams online. |
| **Level 2**  Module 1:  DICO Team Manager Action Plan  (see **Appendix C**)  Module 2:  Scenarios  (see **Appendix D**) | Module 1: The Action Plan contains a “To Do” list, multiple choice – multiple response items (check boxes), and a blank schedule with a notes section for TMs to complete on the last slide of Module 1.  Module 2: The scenarios present three situations that DICO TMs commonly encounter when working with teams. The open-response format allows for TMs to apply what they have learned in a real-world situation. The scenarios are presented on the last slide of the module. Upon submitting, a pop-up window with sample answers appears.  ACCESSIBILITY: Created with accessible font type (Calibri), size (12 pt.), and color (black). Alt text is provided for clickable images/content (e.g., check boxes, blank schedule). | Participants will complete and submit action plans and scenario responses upon completion of each module to promote a high response rate (Kirkpatrick & Kirkpatrick, 2016). | Action Plans will be submitted via the DICO website.  Scenario responses will be submitted via the module itself.  All responses will be anonymous. However, each participant will be assigned a different code/ identifier for the purpose of tracking, comparing, and contrasting action plan and scenario data across multiple levels. | The data will be collected via the DICO website or module.  Success Criteria: If at least 90% of TMs submit a completed background check to DICO, that will demonstrate successful application of one element of the Action Plan.  At least 80% correct and/or appropriate responses to all other elements of the Action Plan will be considered successful to demonstrate learners gained the knowledge, skills, and confidence to start managing their DICO teams online.  At least 80% correct and/or appropriate responses to all scenarios will be considered successful to demonstrate learners gained the knowledge, skills, and confidence to continue working with their DICO teams online. |
| **Levels 1 – 2**  Interview Questions  (see **Appendix E**) | Four open-ended interview questions.  ACCESSIBILITY: Option to be administered orally (by phone, video conference, or in person) or via email. Emailed interview questions were written with accessible font type (Calibri), size (12 pt.), and color (black). | Interviews with individuals and focus groups will provide more in-depth information and allow FCG Evaluator(s) to collect information/ data related to any concerns raised by the survey and questionnaire and/or Action Plan (Kirkpatrick & Kirkpatrick, 2016). | FCG Evaluator(s), in cooperation with the DICO ED, will schedule or distribute interviews with/to participants 4-10 weeks after learners complete Modules 1 and 2. | FCG Evaluator(s) will record or collect responses via audio/video conferencing tool or email.  Success Criteria: At least 80% favorable responses will demonstrate success of the modules. |
| **Level 3**  Action Plan Observation and Self-Reflection form  \*connected to Level 2 Action Plan  (see **Appendix F**)  Communities of Practice: Guiding Questions  (see **Appendix G**)  Rewards | For observations and self-reflections, a form will be provided. The self-reflection and observation form lists specific, observable, and measurable critical behaviors (Kirkpatrick & Kirkpatrick) related to the Level 2 Action Plans TMs created. RDs/support personnel, and TMs will score using a 1-4 scale and write comments in the form – related to the criteria – prior to meeting.  TMs will team up with 1-2 other TMs to create a community of practice that meets at least twice per month. At least one TM in the group is an experienced TM, with a minimum of two years of managing experience. The experienced TM will serve as a mentor to less experienced TMs. The groups will be given a set of seven open-ended, guiding questions they can use to prompt discussion within groups but are also encouraged to engage in open conversation about relevant topics.  Reward, in the form of verbal recognition, will be shared aloud once per month during DICO “Wine and Wisdom” meetings. The meeting leaders will send an email request, at least two weeks prior to meeting, that RDs/support personnel, co-team managers, community of practice participants, and others who work with TMs email positive comments about other TMs work with students.  ACCESSIBILITY: Emailed observation/self-reflection forms were written with accessible font type (Calibri), size (12 pt.), and color (black). If participants chose to print the form, they could dictate responses for someone else to record.  Community of Practice questions were written with accessible font type (Calibri), size (12 pt.), and color (black). The group leader or a group member could also read/pose a question aloud to the group. Meetings could be conducted in person, via video conferencing tool, or on a shared document tool (e.g. Padlet, Google doc).  Rewards were offered verbally or in writing by posting to a “Wine and Wisdom” collaborative board (e.g., Padlet), using an accessible font type, size, and color. | According to Kirkpatrick & Kirkpatrick (2016), “success at Level 3 is the key to Level 4 Results” (p. 53). Therefore, a great deal of attention is given to required drivers at this level to offer support and accountability.  Specifically, RDs/support personnel serve as monitors (accountability) of critical behaviors/follow up on action plans. Due to the limited amount of resources in DICO regions, the self-reflection is built in as an additional monitoring method (Kirkpatrick & Kirkpatrick, 2016).  The experienced TM and the community of practice serve as the required drivers to both reinforce and encourage (through mentoring/coaching) critical behaviors for newer TMs (Kirkpatrick & Kirkpatrick, 2016).  Verbal rewards, in the form of recognition, during “Wine and Wisdom” meetings serve to reinforce the use of critical behaviors, and as Kirkpatrick & Kirkpatrick (2016) note, “just having someone notice and mention good performance is even more meaningful than any particular tangible reward” (p. 56). | The Action Plan Outcomes form will be distributed for use to RDs/support personnel and TMs via email (they may print and write or type responses directly into the form and save it to their desktops). RDs and/or other regional support personnel are assigned a TM to meet with once or twice per month (depending on time constraints). Prior to meeting, the RD/support person will observe a live or recorded TM team meeting, then complete the form. TMs will also complete the form prior to meeting with the RD/support personnel. RDs/support personnel and TM will compare and contrast comments on the forms as a basis for discussing similarities/difference, strengths, and areas for improvement.  Communities of practice allow for TMs to work together to solve problems and address issues in real time. Having an experienced TM as part of each group, allows for that individual to serve as a mentor/coach to less experienced TMs, and provides a means for encouragement.  “Wine and Wisdom” monthly meetings have been a popular initiative in DICO for several years. Because attendance is relatively high, the forum offers a great opportunity to offer rewards – in the form of verbal praise – to TMs who perform critical behaviors well. Additionally, this type of reward can serve as a way to bring TMs’ attention to/remind them of critical behaviors and provides real-world examples of TMs using critical behaviors effectively to manage their teams online. | The data will be collected by requesting copies of forms from willing RDs/personnel and TMs via email.  Additionally, FCG Evaluator(s) will work with the ED to arrange live (video) or email (written) interviews with community of practice leaders and “Wine and Wisdom” facilitators to collect anecdotal evidence from community of practice meetings and reward data from facilitators.  Success Criteria: 100% of TMs will be marked as proficient or advanced at performing critical behaviors.  At least 80% positive anecdotal evidence from community of practice leaders will demonstrate success of the modules.  At least 85% of TMs who attend “Wine and Wisdom” meetings will receive verbal rewards for performing critical behaviors. |
| **Level 4**  Outcomes individual/focus group interviews  (see **Appendix H**)  Request for Validation  (see **Appendix I**)  TMs return to manage a team during the 2021-2022 season | Individual/focus group interviews consist of four open-ended questions, based on leading indicators and elements of the Action Plan Outcomes form.  The request for validation is formatted as a letter to TMs with five open-ended questions (one of which requests historical comparison) and one yes/no question.  ACCESSIBILITY: Option to be administered orally (by phone, video conference, or in person) or via email. Emailed interview questions were written with accessible font type, size, and color.  The Request for Validation Letter was written with accessible font type, size, and color. | According to Kirkpatrick & Kirkpatrick (2016), “Action planning during training is a good way to set the stage for performance on the job and watching for subsequent results” as long as the evaluator ensures “that training graduates define the outcomes they expect if they perform the critical behaviors” (p. 64).  Individual/focus group interviews allow for the collection of data related to the action plan and outcomes (Kirkpatrick & Kirkpatrick, 2016).  Requests for validation allow evaluators to obtain meaningful data that can be connected to training. Additionally, a request for validation that includes a “historical comparison…is usually very powerful to stakeholders because it implies causality” (Kirkpatrick & Kirkpatrick, 2016, p. 64). | Individual/focus group interviews will be scheduled by FCG Evaluator(s) in coordination with the ED.  The request for validation letter will be sent via email to all TMs who registered a team for the 2020-2021 DICO season. | FCG Evaluator(s) will work with the ED to schedule individual/focus group interviews.  Responses to the request for validation questions will be collected via the ED’s DICO email.  Percent of managers returning will be collected from the DICO registration site.  Success Criteria: At least 80% favorable responses to interview questions will demonstrate module success.  At least 80% favorable responses to requests for validation will demonstrate module success.  At least 85% of TMs will return to manage one or more teams during the 2021-2022 DICO season. |

**Data Analysis and Reporting Process**

**Data Analysis**

**Level 1 Analysis.** For the Level 1 analysis, FCG collected responses from the 189 participants who submitted the Blended Evaluation® Survey and Questionnaire. We then used Qualtrics XM to calculate the average of scaled, YES/NO, and fill-in-the-blank responses. For open-ended responses, we kept the “signal-to-noise ratio” in mind to code/index responses to conditional questions with a focus on the goals of the training modules and the information that was most important to key stakeholders (Kirkpatrick & Kirkpatrick, 2016, p. 121): participants’ engagement with the training, ease of navigating the training, participants’ perception of the relevance of the training, and if participants would recommend the training to others. See **Appendix J** for results.

To analyze the 102 Level 1 responses on the interview questions, FCG once again coded/indexed responses to identify and synthesize/summarize the most common responses to questions regarding module content, navigation and accessibility, as well as relevance. Then we calculated the percentage of participants whose responses most closely matched the synthesized/summarized responses. See **Appendix N** for results.

**Level 2 Analysis.** For the Level 2 analysis, FCG collected responses from the 189 participants who submitted the Blended Evaluation® Survey and Questionnaire. We then used Qualtrics XM to calculate the average of scaled, YES/NO, and fill-in-the-blank responses. For open-ended responses, we used the same process as Level 1 analysis to code/index responses to conditional questions with a focus on the goals of the training modules and the information that was most important to key stakeholders: skills, knowledge, and confidence to manage teams online. See **Appendix K** for results.

189 action plans were submitted via Module 1 to the DICO LMS. So, FCG worked with the ED to 1) collect data regarding the number and total percent of participants who completed and submitted a background check to DICO, and 2) to collect the action plans and ask for the ED’s input regarding correct/ appropriate responses. Once the correct/appropriate responses were identified, FCG was able to calculate the percent of participants who correctly developed all other components of the action plan. See **Appendix L** for results.

189 scenario responses were submitted via Module 2 to the DICO LMS. FCG worked with the ED and RDs to 1) collect scenario responses, and 2) to ask for the ED’s and willing RDs’ input regarding correct/ appropriate responses. Once correct/appropriate responses were identified, FCG was able to calculate the percent of participants who responded appropriately to the scenarios. See **Appendix M** for results.

To analyze the 102 Level 2 responses on the interview questions, FCG once again coded/indexed responses to identify and synthesize/summarize the most common responses to the question regarding the types of information, resources, and/or strategies that would be most useful to participants as they worked with their team(s) online this season. Then we calculated the percentage of participants whose responses most closely matched the synthesized/summarized response. See **Appendix N** for results.

**Level 3 Analysis.** For the Level 3 analysis, FCG in cooperation with the ED requested that RDs/support personnel and Team Managers email observation and self-reflection form scores and comments. We received 97 forms, which we divided into two groups – experienced (3+ years) and less experienced (0-2 years) Team Managers, because our assumption was that experienced Team Managers would likely score higher on the use of critical behaviors due to their previous experiences managing teams over several years. Then, FCG calculated the mean scores from the observation and self-reflection forms. See **Appendix O** for results.

FCG and the ED interviewed 82 community of practice group leaders regarding their experiences, and asked interviewees to use a single word or phrase to describe how they felt about the support they received by participating in communities of practice. We then listed the most common terms and tallied the number of responses that were the same or similar to each term. See **Appendix P** for results.

FCG and the ED interviewed the two facilitators for “Wine and Wisdom” night to ask 1) how many Team Managers participated in “Wine and Wisdom” nights and 2) how many verbal rewards were given during meetings. See **Appendix Q** for results.

**Level 4 Analysis.** FCG worked with the ED to schedule and conduct Level 4 interviews with 108 participants. To analyze participants’ responses, FCG asked for input from the ED to code/index responses, then identify and synthesize/summarize common responses to questions regarding expected outcomes from the Level 2 action plan. Then we calculated the percentage of participants whose responses most closely matched the synthesized/summarized responses. Additionally, FCG and the ED selected several example responses to share with other key stakeholders. See **Appendix R** for results.

FCG and the ED received 78 responses to our requests for validation. As with other interview type instruments, FCG and the ED worked together to code/index positive versus negative responses then calculate the percentage of positive responses. FCG also requested that the ED select the most relevant participant responses to questions regarding how the modules supported Team Managers’ ability to work effectively with their teams online, as well as the positive habits, actions, and traits Team Managers attributed to what they learned from the modules. In order to provide a historical comparison to stakeholders, FCG calculated respondents’ training preferences (past trainings versus the new asynchronous modules). Additionally, we requested that the ED read through and select the three best success stories to share with other stakeholders. See **Appendix S** for results.

The final component of the Level 4 analysis was to calculate the percent of Team Managers who returned to manage a team/teams for the 2021-2022 DICO season. FCG was able to collect this data from the ED via the DICO registration site. See **Appendix T** for results.

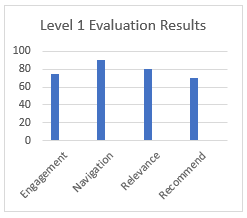
**Reporting Process**

The final report will be distributed to all key stakeholders, including the ED, the DICO Board of Directors, and Regional Directors. It will also be available on the DICO website for other interested stakeholders and community members to access and review. The data collected from evaluation instruments will be presented during two live PowerPoint presentations, which will also be recorded and uploaded to the DICO website for those who were not able to attend and/or access the live presentations.

The focus of the report and presentation will be to draw connections between the results and the desired outcomes listed and described in the “Goals, Purpose, Objectives & Scope” section. The data will be presented in a variety of formats (graphs, charts, pictorially, anecdotally) to help stakeholders both visualize and internalize quantitative and qualitative results.

**Level 1**

Results from the Blended Evaluation® indicated that nearly 80% of participants found the training engaging, 90% found the training easy to navigate, 80% found the training relevant, and 70% would recommend the training to other Team Managers (see **Appendix J**).



Responses to the Level 1 interview questions were more than 80% positive, while at the same time offered valuable insights into ways that the module could be improved (see **Appendix N**).

**Level 2**

For module 1 of the training, the overall correct/favorable response rate on the Blended Evaluation® was 88%. For module 2 of the training, the overall correct/favorable response rate was 85% (see **Appendix K**).

Historically, DICO has received completed background checks from less than 80% of Team Managers. This has been problematic because of Child Safety Regulations related to volunteer, adult support and supervision of minor children who participate in DI. This season, however, results indicate that 91% of Team Managers submitted proof of a completed background check. This is a huge win, not only for DICO but also for ensuring the safety of the students they serve across the state of Colorado! (see **Appendix L**)

For all other action plan elements, the overall correct/appropriate response rate was 82% (see **Appendix L**).

86% of participants responded correctly/appropriately to the scenarios presented in Module 2 of the training (see **Appendix M**).

The Level 2 interview question indicated that 92% of participants would like live monthly Q&A sessions, 83% want to Instant Challenges modeled, 68% would like to have a premade schedule for the season, and 59% noted a variety of other requests (e.g., small group and one-on-one coaching/mentorship, a co-Team Manager, additional group management strategies) (see **Appendix N**).

**Level 3**

Level 3 participant observations and self-reflections were on target at 100% of Team Managers demonstrating/scoring themselves at proficient or above (3-4) using critical behaviors. The average observation score for experienced Team Managers was 3.8 and the average self-reflection score was 3.6 (total average 3.7). The average observation score for less experienced Team Managers was 3.1 and the average self-reflection score was 2.9 (total average 3.0). These results align with assumptions about experienced Team Managers likely scoring higher due to more experience working with teams in the past and that individuals tend to be more critical of themselves compared to outside observers (see **Appendix O**).

*Experienced TMs Average Score = 3.7*

*Less Experience/New TMs Average Score = 3.0*

In interviews with community of practice group leaders, eleven key terms were identified and calculated (in order from most to least used term): camaraderie, coaching, mentorship, friendship, helpful, useful, valuable, cooperative, constructive, time consuming, confusing. To show this data visually, FCG created a word cloud (see **Appendix P**).

In interviews with “Wine and Wisdom” facilitators, we learned that 73 Team Managers attended these meetings and 68 of those managers received rewards in the form of verbal praise (see **Appendix Q**).

**Level 4**

Level 4 interviews revealed generally favorable results with 82% of respondents stating they achieved their intended outcomes and 78% reporting that the action plan was useful for helping them achieve desired outcomes. For the purpose of improving the training, 45-50% noted that they felt there should more information about how to use technology/use technology purposefully, 35% requested reminders and/or job aids with the most important information from the training summarized, 90% requested live Q&A sessions with DI experts (e.g., ED, RDs, experienced Team Managers), and 76% requested a Team Manager partner (see **Appendix R**).

The requests for validation yielded 83% generally positive results and anecdotal evidence regarding the training. However, 82% still prefer on-site training (see **Appendix S**).

According to DICO registration data for the 2021-2022 season, 87% of Team Managers returned to manage one or more teams.

For the purpose of accessibility, the written report is created in an ADA compliant Word document and verbal information provided in live presentations is also be provided in an ADA compliant Word or PDF document/transcript with accessible font size, color, and type. All images have alt text. Recorded versions of live presentations have closed captioning.

**References**

Bhatia, M. (2018). Your guide to qualitative and quantitative data analysis methods. Retrieved from <https://humansofdata.atlan.com/2018/09/qualitative-quantitative-data-analysis-methods/>

Destination Imagination (2018). Brand style guide. Retrieved from <file:///C:/Users/Owner/Downloads/18-19%20Brand%20Guide%209.17.18.pdf>

Destination Imagination (2020). Challenge previews. Retrieved from <https://www.destinationimagination.org/challenge-program/2020-21-challenge-previews/>

Destination Imagination Colorado (2020). About destination imagination (DI) Colorado. Retrieved from <https://www.dicolorado.com/about-di/>

Destination Imagination Colorado (2020). DI Colorado regions. Retrieved from <https://www.dicolorado.com/regions/>

Grimmet, K., Ud Duha, M.S., & Castellanos Reyes, D. (2018). Accessibility 101. Purdue University Online Repository for Online Teaching and Learning.

Kirkpatrick, D.L., & Kirkpatrick, J.D. (2006). Evaluating training programs: The four levels. San Francisco: Berrett-Koehler Publishers, Inc.

Kirkpatrick, J.D., & Kirkpatrick, W.K. (2016). *Kirkpatrick’s four levels of training evaluation*. ATD Press.

**Appendix A**

**Module 1** DICO Team Manager Survey and Questionnaire

*Please complete PART I and PART II of the Survey and Questionnaire within two weeks of completing the module. Click “SUBMIT” to record your answers. Your honest and candid feedback is essential for making improvements to the module.* ***All responses will be anonymous****.*

*PART I: Please tell us about your experience with this module by answering the questions below.*

Strongly Somewhat Somewhat Strongly

disagree disagree agree agree

1 2 3 4

1. I found the module engaging/interesting.

If you selected 1 or 2, please explain.

YES NO

1. The module was easy to navigate.

If “NO,” which element(s) did you have difficulty

With and why?

Strongly Somewhat Somewhat Strongly

disagree disagree agree agree

1 2 3 4

1. The “Tips, Tricks, & Strategies” provided will help me

start to effectively manage my team online.

If you selected 1 or 2, please explain.

1. Knowing the 5 principles of the DI educational

YES NO

experience will help me effectively manage my

team.

Please explain how and/or why knowing the 5

principles *will* or *will not* help you effectively

manage your team.

YES NO

1. I will recommend this module to other Team

Managers.

If you selected “NO,” please explain.

1. How could this module be improved?

*PART II: Please tell us about what you learned from this module by answering the questions below.*

Strongly Somewhat Somewhat Strongly

disagree disagree agree agree

1 2 3 4

1. I feel confident in my ability to start managing

my team online.

If you selected 1 or 2, please explain.

YES NO

1. I know how to complete then submit proof

of my background check.

If “NO,” what information and/or support

do you need?

1. Please list and describe strategies you will

use to get started with your team.

1. Fill in the blanks to complete the DI educational

experience principles.

* Ultimate \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Ownership
* \_\_\_\_\_\_\_\_\_\_\_\_\_ Awareness
* Clarifying \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Authentic \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Rapid \_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_

1. If you are willing to be interviewed about

your experience with this module, please

provide your name and contact information

(phone number and/or email address).

[SUBMIT BUTTON]

**Module 1 Survey and Questionnaire Answer Key**

Questions 1 – 8. Answers will vary.

Question 9. Answers will vary but could include responses such as: I will learn how to use Kahoot for team building exercises; I will use Padlet for Instant Challenge prep and meeting agendas; I will establish a virtual presence by sharing my camera during team meetings; I will build online community by using games and activities such as four fingers up/two truths and a lie/etc.; I will schedule monthly check-ins with team members and their family members; I will work with team members to establish team norms and routines; I will work with team members to create a meeting agenda; I will use the DI educational experience principles to ensure team members maintain ownership of their Challenge selection and solution.

Question 10.

* Ultimate Learner Ownership
* Resource Awareness
* Clarifying Questions
* Authentic Self-Expression
* Rapid Ideation and Implementation

Questions 11 – 12. Answers will vary.

**Appendix B**

**Module 2** DICO Team Manager Survey and Questionnaire

*Please complete PART I and PART II of the Survey and Questionnaire within two weeks of completing the module. Click “SUBMIT” to record your answers. Your honest and candid feedback is essential for making improvements to the module.* ***All responses will be anonymous****.*

*PART I: Please tell us about your experience with this module by answering the questions below.*

1. I found the module engaging/interesting.

Strongly Somewhat Somewhat Strongly

disagree disagree agree agree

1 2 3 4

If you selected 1 or 2, please explain.

YES NO

1. The module was easy to navigate.

If “NO,” which element(s) did you have difficulty with

and why?

Strongly Somewhat Somewhat Strongly

disagree disagree agree agree

1 2 3 4

1. The information, resources, and strategies provided

support my ability to effectively work with my team

as they develop a solution to their Challenge.

If you selected 1 or 2, please explain.

YES NO

1. I will recommend this module to other Team

Managers.

If you selected “NO,” please explain.

1. How could this module be improved?

*PART II: Please tell us about what you learned from this module by answering the questions below.*

1. Please list and describe the steps/actions you will

take to work with your team to develop a solution

**and** prepare to present the solution at your Regional

Tournament.

1. Next to each Challenge type, state the focus

**and** basic requirements of the Challenge.

* Technical Challenge:
* Scientific Challenge:
* Fine Arts Challenge:
* Service Learning Challenge:
* Rising Stars Challenge:
* Engineering Challenge:
* Improvisational Challenge:

1. When is the deadline to submit clarifications?
2. When is your Regional Tournament?
3. Next to each foundational Team Manager

Resource, name and/or describe important

information you will need from that resource.

* Rules of the Road:
* First Look:
* Materials and Usage:
* Roadmap:

1. If you are willing to be interviewed about

your experience with this module, please

provide your name and contact information

(phone number and/or email address).

**Module 2 Survey and Questionnaire Answer Key**

Questions 1 – 5. Answers will vary.

Question 6. Answers will vary but could include responses such as: I will use the sample agendas and work with team members to establish weekly and monthly schedules; I will thoroughly discuss the Challenges with my team and ask them questions to help them determine which Challenge(s) are most feasible to develop a solution for; I will refer to the Rules of the Road for important information about Challenge requirements, important deadlines/dates; I will refer to the Materials and Usage document to seek clarification about materials cost limits and appropriate usage of different types of materials; I will not “interfere” as my team works to develop a solution, etc.

Question 7.

* Technical Challenge: use engineering, research, strategic planning, and related skills to make a video-game-style presentation that includes an adventurer with a special ability, who is on a quest to win a prize. Must include 3 quest items that can be combined to make a tool; must include 2 Team Choice Elements.
* Scientific Challenge: use scientific research and creative expression of performance art to make a documentary-style video story about a scientific law that is bent/broken; show how the law is bent/broken; that features an expert and a witness; must include 2 Team Choice Elements.
* Fine Arts Challenge: use acting and creative skills including artistic media, theater arts, scriptwriting, and prop design. Research and create a music video. The video must: have music and lyrics that retell all or part of a piece of literature; have a costume; enhancing production techniques; two Team Choice Elements.
* Service Learning Challenge: public service to address a community issue. A video presentation that has a podcast about a community problem, which must include: a commercial; a cliffhanger; an unusual/quirky character; information about the project; two Team Choice Elements.
* Rising Stars Challenge: exposes pre-school through second graders to the creative process. Create and present a picture book, via video, about an animal that goes on an adventure. The book must include: text and illustrations; a special effect; and a song related to the story.
* Engineering Challenge: design, build, and test multiple load-bearing structures using specific materials. [Basic requirements to be released November 1, 2020].
* Improvisational Challenge: Given a topic, team members create and present a skit. [Basic requirements to be released December 1, 2020].

Question 8. January 31, 2021.

Question 9. Answers will vary but should be a date March-April of 2021.

Question 10.

* Rules of the Road: contains the rules for each Challenge, tournament procedures, and required forms.
* First Look: provides an overview of this season’s Challenges.
* Materials and Usage: explains how to use common materials for Challenges and Instant Challenges.
* Roadmap: Overview of all DI components, including important deadlines; rules of “interference;” team building activities; Instant Challenges for practice/preparing for tournament; team meeting agendas; the creative process; project-based learning approach.

Question 11. Answers will vary.

**Appendix C**

**DICO Team Manager Action Plan**

*Please complete each section of the Action Plan.*

**TO DO LIST**

**Note the date, day, and/or time on the blank line in parentheses for each task in the To Do List.**

* + - Complete background check(s) and submit to DICO. (Date completed/submitted \_\_\_\_\_\_\_\_)
* Review this season’s Challenges. (Date reviewed \_\_\_\_\_\_\_\_)
* Choose a weekly meeting day and time that works for all team members. (Day/time \_\_\_\_\_)
* Create a schedule/agenda for your first team meeting. (Date completed \_\_\_\_\_\_\_\_)

**CREATING COMMUNITY AND ENGAGEMENT IN AN ONLINE ENVIRONMENT**

Click the boxes to choose **at least** **five** strategies you will use to create community and engagement in an online environment.

Build in time for snacks and socializing at the beginning of each team meeting.

Schedule check-ins with team and family members, at least once a month.

Learn about and use Zoom “breakout rooms.”

Invite family members to attend team meetings.

Establish times for students to work independently, in pairs, and whole group.

Use “ice-breakers” to start team meetings.

Email a link to an IC Padlet and/or text IC supply lists at least three days prior to team meetings.

Choose ICs that require affordable and widely available materials.

Ask team members to list and assign tasks that need to be completed prior to the next meeting.

Create a list of questions and/or prompts to help promote team conversations.

Test your technology at least one hour before each team meeting.

Make a contingency plan to address issues that may arise (e.g., tech issues, illness, etc.).

**TEAM SCHEDULE**

Click the boxes to show **which team agenda(s) will you use/refer to for your first team meeting.**

**Blank Meeting Agenda Form (at end of this document OR Roadmap, p. 31)**

**Initial Team Member Meeting Agenda**

**Challenge Discussion Team Meetings (Roadmap, p. 27)**

**General Team Meeting Agenda (Example)**

**16-Week Example Agenda (Roadmap, pp. 32-56)**

Click the boxes to show **which team agenda(s) will you use/refer to for the 3-4 meetings that follow the first meeting.**

**Blank Meeting Agenda Form (at end of this document OR Roadmap, p. 31)**

**Initial Team Member Meeting Agenda**

**Challenge Discussion Team Meetings (Roadmap, p. 27)**

**General Team Meeting Agenda (Example)**

**Working on a Solution Agenda**

**ESTABLISHING TEAM NORMS AND ROUTINES**

**Click the boxes to show which team norms and routines you plan to establish.**

**Work with team members to create a team charter.**

**Assign student roles.**

**Rotate student roles every 1-3 meetings.**

**List essential norms and talk with team members to add/revise norms during the first team meeting.**

**Write norms and routines using student-friendly language.**

**Display and review team norms and routines at the beginning of team meetings.**

**TIPS, TRICKS, and STRATEGIES**

**Click the boxes to show which tips, tricks, and strategies you will use with your team.**

**Reflect on and discuss the team’s progress at the beginning and/or end of each meeting.**

**Display and refer to the meeting schedule to keep students on task.**

**Play team-building games and/or use Kahoot for team ice-breakers.**

**Use sound and/or visual cues to get students’ attention.**

**Set and display timers to keep students on task.**

**Learn and use the features of your online video conferencing/meeting tool (e.g., features of Zoom).**

**Keep meetings relatively short (approximately 30 minutes) and/or highly active.**

**Use Padlet to share meeting agendas, ICs/materials, questions for the group to consider, etc.**

**Use DOVE or A Better Way to Brainstorm strategies to support your team’s ability to generate ideas.**

**Be intentional about giving effective feedback that is timely, specific, and relevant.**

**Blank Meeting Agenda**

**Refer to the selections you made in the above sections to fill in the blank meeting agenda for your first team meeting (*TIP: copy/paste the blank agenda one or more times into a new Word doc to plan further meetings*).**

|  |  |
| --- | --- |
| **Time** | **Task/Activity** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

**Notes: (add relevant notes regarding actions, steps, strategies, and/or other information you will need for your first and following 3-4 team meetings)**

**Outcomes:** What outcomes do you expect to see as a result of completing and using your action plan while working with your team? (e.g., team members effectively collaborate to develop a Challenge solution/perform ICs; my team will be ready to present a complete solution at the Regional Tournament; my team will present an appropriate solution at the Regional Tournament; my team will receive a high enough score at the Regional Tournament to compete at the State Tournament, etc.)

*When you are done, please click “Attach” [Attach Button] to select then upload your completed Action Plan. Note: Each Action Plan will be assigned a code, rather than personal identification information, to maintain your anonymity.*

**Answer Key**

Answers will vary but may look similar to the Sample Action Plan below.

**TO DO LIST**

**Note the date, day, and/or time on the blank line in parentheses for each task in the To Do List.**

* + - Complete background check(s). (October 12, 2020)
* Review this season’s Challenges. (October 15, 2020)
* Choose a weekly meeting day and time that works for all team members. (Wednesdays at 5:00-5:45 pm)
* Create a schedule/agenda for your first team meeting. (October 17, 2020)

**CREATING COMMUNITY AND ENGAGEMENT IN AN ONLINE ENVIRONMENT**

Click the boxes to choose **at least** **five** strategies you will use to create community and engagement in an online environment.

Build in time for snacks and socializing at the beginning of each team meeting.

Schedule check-ins with team and family members, at least once a month.

Learn about and use Zoom “breakout rooms.”

Invite family members to attend team meetings.

Establish times for students to work independently, in pairs, and whole group.

Use “ice-breakers” to start team meetings.

Email a link to an IC Padlet and/or text IC supply lists at least three days prior to team meetings.

Choose ICs that require affordable and widely available materials.

Ask team members to list and assign tasks that need to be completed prior to the next meeting.

Create a list of questions and/or prompts to help promote team conversations.

Test your technology at least one hour before each team meeting.

Make a contingency plan to address issues that may arise (e.g., tech issues, illness, etc.).

**TEAM SCHEDULE**

Click the boxes to show **which team agenda(s) will you use/refer to for your first team meeting.**

**Blank Meeting Agenda Form (at end of this document OR Roadmap, p. 31)**

**Initial Team Member Meeting Agenda**

**Challenge Discussion Team Meetings (Roadmap, p. 27)**

**General Team Meeting Agenda (Example)**

**16-Week Example Agenda (Roadmap, pp. 32-56)**

Click the boxes to show **which team agenda(s) will you use/refer to for the 3-4 meetings that follow the first meeting.**

**Blank Meeting Agenda Form (****at end of this document OR Roadmap, p. 31)**

**Initial Team Member Meeting Agenda**

**Challenge Discussion Team Meetings (Roadmap, p. 27)**

**General Team Meeting Agenda (Example)**

**Working on a Solution Agenda**

**ESTABLISHING TEAM NORMS AND ROUTINES**

**Click the boxes to show which team norms and routines you plan to establish.**

**Work with team members to create a team charter.**

**Assign student roles.**

**Rotate student roles every 1-3 meetings.**

**List essential norms and talk with team members to add/revise norms during the first team meeting.**

**Write norms and routines using student-friendly language.**

**Display and review team norms and routines at the beginning of team meetings.**

**TIPS, TRICKS, and STRATEGIES**

**Click the boxes to show which tips, tricks, and strategies you will use with your team.**

**Reflect on and discuss the team’s progress at the beginning and/or end of each meeting.**

**Display and refer to the meeting schedule to keep students on task.**

**Play team-building games and/or use Kahoot for team ice-breakers.**

**Use sound and/or visual cues to get students’ attention.**

**Set and display timers to keep students on task.**

**Learn and use the features of your online video conferencing/meeting tool (e.g., features of Zoom).**

**Keep meetings relatively short (approximately 30 minutes) and/or highly active.**

**Use Padlet to share meeting agendas, ICs/materials, questions for the group to consider, etc.**

**Use DOVE or A Better Way to Brainstorm strategies to support your team’s ability to generate ideas.**

**Be intentional about giving effective feedback that is timely, specific, and relevant.**

**Sample Blank Meeting Agenda**

**Refer to the selections you made in the above sections to fill in the blank meeting agenda for your first team meeting (*TIP: copy/paste the blank agenda one or more times into a new Word doc to plan further meetings*).**

|  |  |
| --- | --- |
| **Time** | **Task/Activity** |
| **15-20 minutes** | **Getting to Know Each Other**   * **Play team-building game (Would You Rather or Race to 40) OR an activity from the Rules of the Road Teamwork section.** |
| **10 – 15 minutes** | **Share Challenge previews and ask students to discuss which 1-2 they find most interesting and why (record ideas on a Padlet or Word doc).** |
| **20-30 minutes** | **Instant Challenge practice**   * **Choose an Instant Challenge from the Instant Challenge section OR search the internet to locate an IC online.** * **Ask reflection question included with the IC (write own reflection questions if needed).** * **Ask the team to redo the Challenge in a new or better way after they reflect.** |
| **5-10 minutes** | **Give students effective feedback about the meeting, set the next meeting day/time, and adjourn.** |

**Notes:**

* **Create a Padlet with the name of the team-building/teamwork activity and instructions. Copy link to share with students at the beginning of the meeting.**
* **Have Challenge previews open and ready to share with team members. Create a blank Padlet to record team’s 1-2 top Challenge choice(s).**
* **Choose an Instant Challenge that doesn’t require materials OR make a Padlet/text or email IC supply list to all team members/family members at least three days before the meeting.**
* **Write IC reflection questions if necessary.**

**Outcomes:** (answers will vary but may be similar to “e.g.” listed in template)

**Appendix D**

**DICO Team Manager Scenarios**

*Use the resources, information, and strategies you’ve learned to think about and respond to each scenario in the blank space provided. When you’re done, compare your responses to the sample responses provided. Reflect on the similarities and differences between the responses, and consider what you would do similarly or differently if you encounter these scenarios while working with your team.*

SCENARIO 1

Your team is struggling to choose a Challenge to solve. Based on their individual strengths and talents, as well as their common interests, they’ve narrowed it down to two options. What resources, information, and/or strategies can you use to help them make a decision?

SCENARIO 2

Your team is having difficulty working together to solve Instant Challenges (ICs), because one or two team members tend to tell the others what to do and one team member doesn’t contribute to the discussion/solution at all. What can you do to ensure all team members are engaged and contributing to solve the ICs?

SCENARIO 3

Your team is having trouble staying focused, and they’re not getting much done during or between meetings. Because of this, you’re worried that they won’t have a solution to present at the Regional Tournament. What can you do to help them get on track?

**Answer Key**

Answers will vary but may include ideas similar to those in *italics*.

SCENARIO 1

**Your team is struggling to choose a Challenge to solve. Based on their individual strengths and talents, as well as their common interests, they’ve narrowed it down to two options. What resources, information, and/or strategies can you use to help them make a decision?**

*Display pages from the First Look resource that describe each Challenge and/or the relevant Challenge videos found at DI.org. Then, go through each Challenge, step-by-step to discuss what is required for each (steps, actions, materials, time, etc.) Pose questions to team members about what they think about the requirements, e.g. Do we have these materials or will they be easy to find/inexpensive to purchase (within budget limits outlined in Rules of the Road)? Which elements of the Challenge most interest each team member? Which elements do you find least interesting? Do you feel you can complete each part independently or that you might need someone/others to show you how to do certain tasks?*

*As students share their answers to questions/engage in a discussion about each Challenge, create a “pros and cons” list on Padlet. Once students are done answering/discussing, show and read the pros/cons Padlet for each Challenge. Ask team members to think about the pros and cons and discuss which Challenge they think would be best for them to develop a solution for. Continue to encourage discussion and ask questions as needed until team members make a choice.*

SCENARIO 2

**Your team is having difficulty working together to solve Instant Challenges (ICs), because one or two team members tend to tell the others what to do and one team member doesn’t contribute to the discussion/solution at all. What can you do to ensure all team members are engaged and contributing to solve the ICs?**

*Assign each student a role while they’re working on ICs, and be sure to change roles each meeting so that each team member has an opportunity to contribute as a team leader, creative director, engineer, etc. Discuss the IC experience with team members, whole group, after each attempt by asking questions like: What worked well and why? What didn’t work well and why? What can you do differently next time and why do you think doing that differently will be helpful? If necessary, schedule time to meet with each team member and a parent/guardian between meetings to discuss the issue and possible solutions. It may also be a good idea to do an IC once if not twice during weekly meetings, until team members work together more effectively/issues are resolved.*

SCENARIO 3

**Your team is having trouble staying focused, and they’re not getting much done during or between meetings. Because of this, you’re worried that they won’t have a solution to present at the Regional Tournament. What can you do to help them get on track?**

*Show team members a timeline of important dates/deadlines and explain why you’re concerned that they won’t have a solution ready in time to present at the Regional Tournament. Break down the tasks that will need to be accomplished to meet each important date/deadline. Then, refer to the tasks to work with students to create SMART goals related to completing the tasks/meeting deadlines. If all tasks can’t be completed during weekly meetings, ask students to choose which ones they will work on together during meetings, and which ones they will work on in pairs/trios or independently between meetings. Make a chart in Padlet with each task, who will complete it, and when. Share the chart at the beginning of each team meeting and check things off as they’re completed. Have team members add to the chart as needed. Give students praise/affirmation/simple rewards for completing tasks on time.*

**Appendix E**

**Modules 1 and 2** DICO Team Manager Interview Questions

*Level 1*

1. What should be removed from or added to the modules to make them more useful?
2. How could navigation and/or accessibility of the modules be improved?
3. What additional feedback, ideas, and/or suggestions for improvement would you like to share?

*Level 2*

1. Based on what you learned or did not learn in the modules, what types of information, resources, and/or strategies would be most useful to you as you work with your team(s) online this season?

**Appendix F**

**Community of Practice: Guiding Questions**

A community of practice is a group of people who share a common passion or interest…in this case, that’s DI! The purpose of participating in a community of practice is to learn from and encourage each other as you work with teams this year. Ideally, you can find time to meet twice per month in person, via a video conferencing tool (e.g., Zoom, Skype), or by using a shared document tool (e.g. Padlet, Google doc).

When meeting with your community of practice, you can use the guiding questions provided to engage in conversation and/or you can have a free-flowing conversation about your team management experience.

1. Is your team working well together? If so, in what ways? If not, what do you think is interfering with their ability to work together/what do you need to help them work better together?
2. What strategies are you using to facilitate Instant Challenges (ICs) in an online environment? Which strategies are most/least effective?
3. What strategies are you using to build/cultivate a sense of connection and community between team members?
4. If you’ve been meeting with team members and family members between meetings, has it been beneficial? If so, in what ways?
5. What types of technology are you using during team meetings? What purpose does each type of technology serve? What frustrations have you encountered with technology? How have you overcome those frustrations or what do you need to overcome those frustrations?
6. How do you use goal setting and a schedule to keep your team on track to present at the Regional Tournament? If you’re not using goal setting and/or a schedule, what are you doing to make sure your team is ready to present at the tournament?
7. What strategies do you use to facilitate the creative thinking/brainstorming process with team members? What is/is not effective about those strategies?

**Appendix G**

**Observation/Self-Reflection Form**

RDs/support personnel: please observe one to two live or recorded team meetings per month, prior to completing the form and using it as a reference when meeting with the Team Manager.

Team Manager: please complete the form following one to two team meetings per month and prior to meeting the RD/support personnel. Use it as a reference during your meeting, to prompt discussion about strengths, areas for improvement, and/or clarifying questions.

|  |  |  |
| --- | --- | --- |
| **Critical Behavior** | **Rating**  **1 – never**  **2 – sometimes**  **3 – often**  **4 – always** | **Comment(s)**  Please explain your rating by providing specific examples/observations. |
| Build team culture within the first month of team meetings (e.g., use games to build a sense of connection and mutual respect, establish team norms/values, set aside time at the beginning of each meeting for team members to talk informally, etc.) |  |  |
| Help team members set, reflect on, and revise goals during each team meeting. |  |  |
| As needed, teach team members how to collaborate and work together effectively to solve their Challenge. |  |  |
| Use technology purposefully and effectively during each team meeting. |  |  |
| Develop a schedule within the first month of meetings, and adjust as needed, to ensure team members are ready to present a complete solution at the Regional Tournament. |  |  |
| Each week, provide timely, specific, and relevant feedback to team members that helps them work collaboratively and develop a solution to their Challenge. |  |  |

**Answer Key**

Responses will vary.

# **Appendix H**

**Action Plan Outcomes: Interview Questions**

1. Did you achieve the outcomes you expected by using your action plan? If so, which outcomes did you achieve?
2. In what way(s) did the action plan support OR *not* support your expected outcomes?
3. How could the action plan be revised/improved to better support your expected outcomes?
4. What other type(s) of support would you need to achieve the outcomes you expected?

**Answer Key**

Responses will vary.

**Appendix I**

**Validation Letter**

Dear Team Manager,

During this DICO season, you completed one or two online training modules that were meant to support you as you get started and continue working with your team in an online environment. Here at the state DICO office, we are interested in hearing about your experience with and the relative value of those modules.

Please take a few minutes to answer the following questions:

1. In what way(s) did the modules support your ability to work with your team in an online environment?
2. Are you able to attribute any positive habits, actions, or team traits (e.g., teamwork, collaboration, goal setting, etc.) to what you learned and applied from the modules?
3. If you are an experienced team manager, how did the use of online modules compare to the previous, live trainings you attended in the past (e.g., at Metro State University, a local school, and/or webinar)?
4. Do you have a success story to share about your experience as a Team Manager this season?
5. Would you be willing to talk with us further about the modules and how they influenced your work with team members?

Thank you for your time and valuable input!

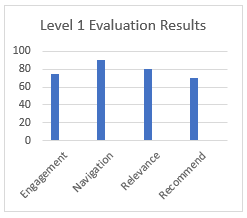
Kind regards,

Kate Donelan

DICO Executive Director

**Appendix J**

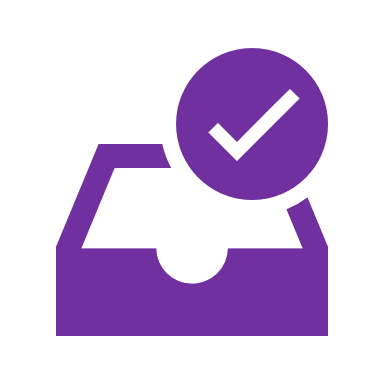
**Module 1 and 2: Level 1 Blended Survey and Questionnaire Results**



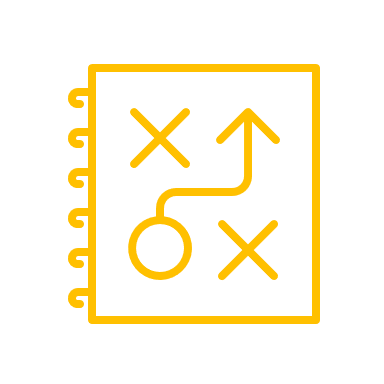
**Appendix K**

**Module 1: Level 2 Blended Survey and Questionnaire Results**

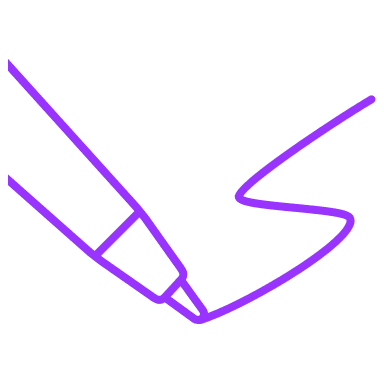
83% of participants reported feeling 3-4 (somewhat to strongly agree) in confidence to start managing their team(s) online.



95% of participants responded “YES” to knowing how to complete and submit a background check to DICO.



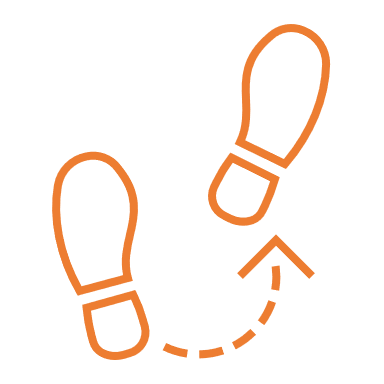
82% of participants were able to list and describe correct/appropriate strategies for working with their team(s) online.



93% of participants correctly filled in the blanks to identify principles of the DI educational experience.

***Overall average of responses 88% correct/favorable.***

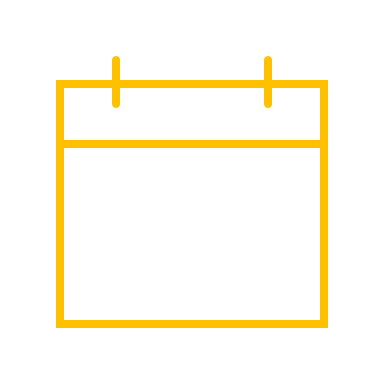
**Module 2: Level 2 Blended Survey and Questionnaire Results**



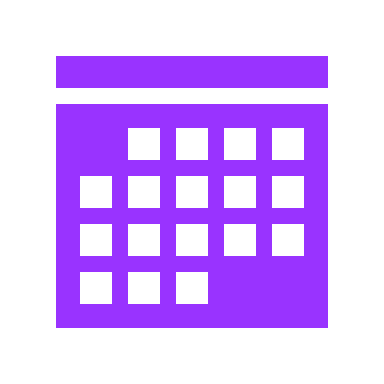
81% of participants were able to list and describe steps/actions to work with teams to develop and present a solution at the Regional Tournament.



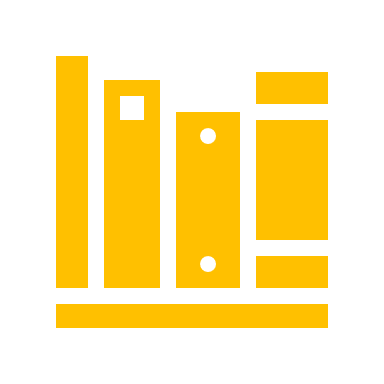
78% of participants correctly stated the focus and requirements of each Challenge.



98% of participants correctly named the deadline to submit clarifications.



97% of participants correctly named their Regional Tournament date.



73% of participants were able to accurately name and/or describe the information in each resource.

***Overall average of responses 85% correct.***

**Appendix L**

**Level 2 Action Plan Results**

**Appendix M**

**Level 2 Scenario Results**

**Appendix N**

**Level 1-2 Interview Results**

*Level 1*

1. What should be removed from or added to the modules to make them more useful?

* *85% of respondents stated that information about interference would be better placed in Module 2, as it is more related to “continued work with teams.”*
* *73% of respondents stated that Module 2 was too long and repeated information from Module 1.*
* *93% of respondents stated that they felt the tips, tricks, and strategies provided in Module 1 were helpful for getting started with their team online.*
* *86% of respondents found the information in Module 1 regarding the DI educational experience helpful for understanding their role as TMs.*
* *78% of respondents stated that the Module 1 Action Plan/Outcomes helped them understand the actions/steps they needed to take to effectively work with their teams in an online environment.*
* *93% of respondents stated that they appreciated the scenarios due to the relevance/similarity to situations they encountered while working with their teams.*

1. How could navigation and/or accessibility of the modules be improved?

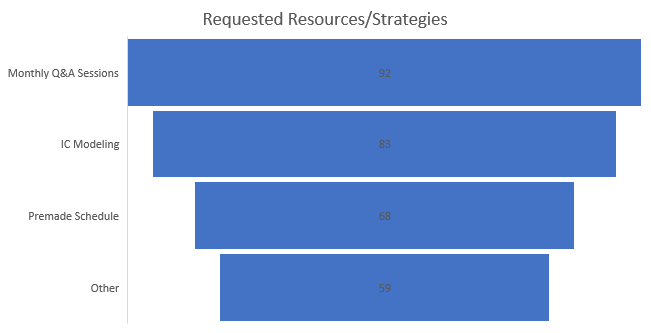
* *88% of respondents had no suggestions for improvement; 4% stated they would have liked to be able to rewind slide audio; 12% stated that it was difficult to navigate the modules when accessing on a smartphone; 3% stated that lighter orange font was difficult to read.*

1. What additional feedback, ideas, and/or suggestions for improvement would you like to share?

* *52% of respondents stated they would have preferred live (synchronous) instruction, so they could ask clarifying questions in real time and have discussions with peers.*
* *22% of respondents requested that video exemplars of experienced TMs working with team members be included.*
* *6% of respondents stated that the addition of more questions, prior to content being presented, would have been more engaging.*

*Level 2*

1. Based on what you learned or did not learn in the modules, what types of information, resources, and/or strategies would be most useful to you as you work with your team(s) online this season?



**Appendix O**

**Level 3 Observation and Self-Reflection Results**

*Experienced TMs Average Score = 3.7*

*Less Experience/New TMs Average Score = 3.0*

**Appendix P**

**Level 3 Communities of Practice: Key Words and Frequency**

The word cloud represents the degree to which each term was used by the 82 participants who were interviewed. The specific numerical/word breakdown was:

17 – camaraderie

17 – coaching

17 – mentorship

16 – friendship

15 – helpful

15 – useful

13 – valuable

11 – cooperative

10 – constructive

7 – time consuming

4 - confusing

**Appendix Q**

**Level 3 Rewards**

*Seventy-three Team Managers attended “Wine and Wisdom” meetings during the 2020-2021 DICO season. Sixty-eight of those TMs received a reward in the form of verbal praise/encouragement.*

**

**68**

**Appendix R**

**Level 4 Interviews**

1. Did you achieve the outcomes you expected by using your action plan? If so, which outcomes did you achieve?

* *82% of respondents stated they did achieve the outcomes they expected and provided examples such as:*

*“I was able to keep my team on task during most meetings.”*

*“My team presented a great solution during the Regional Tournament and scored high enough to be invited to the State Tournament!”*

*“My team worked together really well – they encouraged each other and capitalized on each other’s strengths.”*

*“Team members showed respect for one another.”*

*“Spending the first few weeks establishing community and collaboration really helped my team members show respect for one another’s ideas!”*

*“My team was able to set realistic short and long-term goals, which led to them being able to present a complete solution to their Challenge at the Regional Tournament. While we didn’t score high enough to go to the State Tournament, my team is excited to work together again next season and have already set goals for improving their score next year!”*

1. In what way(s) did the action plan support OR *not* support your expected outcomes?

* *78% of respondents stated that the action plan helped them stay focused on the most important steps/actions to effectively manage their teams in an online environment.*
* *50% of respondents stated there was a lack of information about how to use technology.*

1. How could the action plan be revised/improved to better support your expected outcomes?

* *45% of respondents indicated that a “using technology purposefully” section should be added to the action plan, as many felt overwhelmed by the technology aspect of team management this season (i.e., they had a tendency to use too much technology, which was confusing/inconsistent for students).*
* *28% of respondents requested that links/exemplars of using technology with students would be helpful.*
* *35% of respondents requested some type of reminder (i.e., job aid) be added to the action plan with an overview/reminder of the most important ideas from the module.*

1. What other type(s) of support would you need to achieve the outcomes you expected?

* *90% of respondents requested live Q&A sessions with RDs, the ED, and/or experienced Team Managers at least twice per month.*
* *76% of respondents indicated that they would like a Team Manager partner to discuss ideas, issues, technology issues with each week.*

**Appendix S**

**Level 4 Request for Validation: Participant Response Data and Examples**

*83% of respondents provided favorable responses.*

I’ve always struggled with interference, so getting clarification from the ED helped me understand what I was and was not allowed to do.

The tips about building team culture really helped me get my team off to a great start!

My team was really off task, so I used the SMART goal strategy with them and they were able to stick to goals and present a solution at the Regional Tournament.

Starting off with a short-term schedule helped me understand how to work with team members to create a schedule for the season.

*Positive Habits, Actions, and Traits*

* “Team Time” at the beginning of each meeting made me team feel connected.”
* “Using ice-breakers helped team members get to know each other!”
* “Zoom breakouts were a great way to meet with team members in small groups.”
* “My team members really liked the weekly Padlet because it helped them feel prepared to participate in ICs each week. The parents liked it too!”
* “Testing the tech a half hour before each team meeting was key to avoiding tech frustrations!”
* “Establishing team norms *with* team members created more accountability – team members were actually correcting each other by referring to the norms…I didn’t need to step in too often to get them back on track.”

***Success Stories . . .***

* “This was only my second year managing a team and last year we didn’t do so well – my team wasn’t able to develop a complete solution by tournament time and got really down on themselves about it. This year, I used the tips, tricks, strategies, and other information from the modules to make sure my team stayed on task and on schedule. Not only did they have a complete solution to present at the Regional Tournament, they also scored high enough to go to state!”
* “I’ve worked with the same team for the last three years. This year, we had a new member join the team. Unfortunately, the team struggled to work together with our new team member as well as they had in the past. So, I assigned team roles and rotated them each week that we met. Over the course of the first month of using this strategy, the experienced team members were able to recognize what our new team member brought to the table and started giving him a lot of praise for his ideas. The team did a great job at the Regional Tournament this year and all of them plan to participate again next year. They’re even talking about trying to bring in a new teammate every year, so they’ll have new and more interesting ideas each season.”
* “This was my first year as a Team Manager and to be honest I was really nervous about trying to work with students online because I’m not very tech savvy. However, I tried almost every strategy that was presented in the modules (and went back to them multiple times to make sure I understood what to do) and after a couple of months I started to feel a lot more confident in my ability to use technology to work with my kiddos. Even though we didn’t score very high at the Regional Tournament, my team did present a complete solution and didn’t feel defeated about not getting a high score . . . in fact, they’re already talking about what Challenge they want to tackle next year. This is the best outcome I could’ve hoped for this year!”

**Appendix T**

**Level 4 Team Manager Return 2021-2022**