a National Science Foundation Advanced Technological Education (ATE) Center

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In partnership with Tidewater Community College and Anne Arundel Community College.

This work is funded under grant DUE#1003068 from the National Science Foundation Advanced Technological Education (ATE) program. Opinions and findings expressed herein are those of the authors and do not necessarily reflect the views of the National Science Foundation. © Copyright 2014 Southeast Maritime and Transportation (SMART) Center.
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“We have used the knowledge gained from the SMART Center Institutes to implement a secondary maritime curriculum at two high schools - Blake and Jefferson in Tampa, Florida. We hope to send more teachers to future Institutes in order to expose our new maritime career academy teachers to the shipping industry and continue developing industry-aligned curriculum for the academies.”

- Jake Prokop
Career and Technical Education (CTE) Resource Instructor, School District of Hillsborough County
This manual is designed to equip you with the tools and information necessary to plan and host a Summer Maritime and Transportation Institute in partnership with the Southeast Maritime and Transportation (SMART) Center, a National Science Foundation Advanced Technological education (NSF ATE) Center. The SMART Center is one of just 41 ATE Centers in the U.S. and the only one focused on increasing the pipeline of 21st century trained middle-skill technicians for the maritime and transportation industry. You can learn more about the SMART Center at www.maritime-technology.org.

Since 2010 the SMART Center’s Summer Maritime and Transportation Institutes have provided hundreds of educators who impact thousands of students with a unique, immersive experience in the maritime and transportation industry. These experiences are critical to equipping educators with the information they need to inform student about careers in the maritime and transportation industry. As the majority of the industry’s workforce is nearing retirement there will be a critical lack of middle-skill technicians. SMART certified educators can help students make choices to get them on a career and academic pathway that will enable them to fill those well-paying, rewarding positions which contribute to our national security and prosperity.

We are grateful for your interest in partnering with the SMART Center to host a Summer Maritime and Transportation Institute. Welcome aboard!

Barbara Murray
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"After attending a SMART Center Institute I started a global logistics academy at my high school in Florida and currently have 22 enrolled students in the program."

- Mitzi Plunkett
Global Logistics Instructor
South Broward High School
Using this Manual

This manual is meant both to educate potential SMART Institute partners about the purpose, design, and execution of the SMART Institute model of professional development as well as serve as a toolkit to implement an Institute at your college.

If you are interested in partnering with SMART to host a summer Institute it is vital that you attend at least one Institute in person. Experiencing the Institute will give you a much greater appreciation not only for the Institute’s format and structure but how each part of the Institute fits the larger goals of the SMART Center and your institution so that you can best construct and manage an Institute that is relevant for your area industry employers and educators.

Once you have “come onboard” as a SMART Institute partner this manual should serve as your planning guide. In it you will find all of the practical materials and tips you need to host a successful SMART Institute at your location.

We are always looking to learn from you – our partners – so after your Institute has concluded please plan to share with our staff what worked and what you added to this manual.
Principles Governing SMART Institute

**Structure** – We will provide an experience-based framework for SMART Center partners to follow in order to replicate the successful Maritime and Transportation Institute model that has been proven to turn participants into partners and industry representatives into major stakeholders.

**Timeliness** – We will set up and follow a prescribed timeline to ensure that all SMART Center staff, partners, participants and stakeholders have the opportunity to make their best possible contribution to the SMART Maritime and Transportation Institute and its many powerful outcomes.

**Communication** – Regular communication between partners and SMART Center staff is critical to ensure that the best possible outcomes of the SMART Maritime Institute are achieved. Scheduled and impromptu communication will be necessary to ensure success. Never wait, when in doubt…communicate!
Institute Goals

The SMART Center launched its Summer Maritime Transportation Institutes in the summer of 2010 to give educators and industry leaders a unique, immersive, and collaborative learning environment in which to learn more about the four sectors of the maritime and transportation industry. Recognizing that most educators don’t have time, access, or the relationships needed to spend time in the maritime industry working environment, the SMART Center turned to its industry partners to provide a unique experience for STEM and CTE middle and high school teachers, career coaches and guidance counselors, and 2- and 4-year college faculty and administrators.

The goal of SMART Center Institutes is to equip participants with the information, experience, tools, and connections they need to educate their students, re-careering adults, retired veterans, and student influencers (i.e. parents) about the career opportunities and pathways in the maritime and transportation industry. In the process SMART-certified educators are able to scale information learned at the Institute to their individual institutions, enhancing students’ learning experiences and positively impacting both the SMART Center’s work as well as the Institute host school’s program.

"While San Jacinto College Maritime Program focuses on logistics and US Coast Guard approved training, (through the Summer Maritime and Transportation Institute) I saw other areas upon which we could build from other programs, such as in the boat repair and maintenance area with welding, pipefitting, drafting. As the Port of Houston expands its access to pleasure cruise lines, opportunities in this area can lead to the connection with the hospitality industry. The SMART Institute opened my eyes to these additional opportunities as we look to expand our program."

- Sarah Percy Janes
Vice President of Continuing & Professional Development
San Jacinto College
Required SMART Institute Structure

SMART Institutes are funded through grants from the SMART Center which in turn is funded by the National Science Foundation as an Advanced Technological Education (ATE) Center. Institutes must be structured to enable the SMART Center to attain its mandated goals and objectives.

Through several years of experience the SMART Center has determined that two key elements are required to meet these goals and objectives. They are:

- immersion in the four maritime sectors through industrial tours and panel discussions
- in-depth, focused project work among participant teams

While the first element (industrial site tours and panel discussions) aims to educate our Institute participants, the second element (focused project work) is designed to add to the greater body of knowledge about the industry for educators. The project work developed by Institute teams will be curated and disseminated primarily through the SMART Center's digital repository, housed on the SMART Center website (www.maritime-technologies.org).

The Institute will culminate with a final day formal presentation of participant certificates and project work oral narratives delivered by the participants to an invited audience of industry and educational leaders.

Through this process the four segments of the invisible industry of maritime will be made more visible and accessible to secondary and college students through their participating teachers, faculty, guidance counselors, and career coaches.
Pre-Institute Work

The success of your Institute will depend in large part upon diligent planning. Undertaking a SMART Center Institute will require a significant investment of time and resources from your organization. These are 5-7 full day events that involve multiple tours, meetings, meals, and projects. Having a plan and Institute working group in place will greatly increase your likelihood of a seamless, successful Institute experience!

REQUIRED MEMBERS FOR INSTITUTE WORKING GROUP

We have found that convening a dedicated working group for your Institute will make things go much more smoothly. We recommend the following people to be part of your working group and that the group meets on a regular basis to review progress made against your Institute plan.

- **Conference host and logistics coordinator** - this is the primary person responsible for ensuring the Institute’s success at the host school. This person holds ultimate authority for the Institute plan at the host center site and oversees the work of all other working group team members.

- **Experienced Institute facilitators** – for your first Institute you will be required to work closely both with the SMART Center PI and her staff and have at least 2 Institute facilitators (staff or senior partners who have attended and assisted in producing previous Institutes) on site and regularly participating in the planning sessions. This is to ensure consistency across the Institute experiences and adherence to overall structure and data collection requirements.

- **Administrative assistants** – the administrative assistant will implement the majority of the administrative tasks agreed-upon in the Institute plan such as mailing information to Institute participants, preparing all Institute materials for daily events, and coordinating catering, lodging, and transportation.

- **Project coordinator** – this person will be responsible for developing and implementing all problem-based learning (PBL) activities tasked to the Institute participants. This person will be responsible for creating all instructional pieces necessary for the PBL activities, facilitating the project time during the Institute (providing guidance, answering questions, resolving conflicts, etc.), and following up to communicate project results to the host coordinator, SMART Center, Institute participants, etc.

- **Data collection coordinator** – this person will be responsible for creating and tracking any needed online surveys as well as handing out daily pre- and post-surveys, delivering surveys to the designated SMART Center liaison and working with the SMART Center Institute analyst to convey survey results to the host coordinator, Institute participants, and partners.

- Photographer (must be able to take professional photos throughout the week at each venue) – still photography and video are integral to the ability of the SMART Center to construct timely
presentations, report findings to the National Science Foundation, share results and interactions with industry stakeholders and to engage and inform the community at large about the four sectors of the maritime industry.

- **Transportation team** – you will need for your staff or hired drivers to drive 15-passenger vans to offsite tours and meetings. *(see "Transportation" for more on why this is the recommended mode of transportation)*
TIMELINE
The process for planning the Institutes should begin at least 6 months prior to the Institute start date. This is not a comprehensive checklist and you will likely need to add and/or modify items based on your Institute parameters. A copy of this timeline checklist is available in the Appendix portion of this guide.

SIX MONTHS PRIOR TO START DATE:
- Select dates.
- Contact speakers and/or site locations to determine availability.
- Compile list of invitees who will receive invitation to complete online application for the Institute.
- Determine Institute budget and secure funding sources.
- Begin evaluating hotel options.

FOUR MONTHS PRIOR TO START DATE:
- Send “Save the Date” email alerting potential participants of the day that the online application will be available to complete.
- Work with SMART Center to create print material for Institute including notebooks.
- Secure photographer and/or videographer.
- Locate meeting room space either at host school, hotel or another location for project work.
- Create list of potential industry sites to tour.

THREE MONTHS PRIOR TO START DATE:
- Post online application, review applications.
- Approach industry partners about hosting site tours for Institute participants.

TWO MONTHS PRIOR TO START DATE:
- Confirm site tours and speakers.
- Collect all needed biographies, collateral material from speakers and site hosts for notebooks.
- Confirm all technical services needed onsite for speakers and project work.
- Select caterer and confirm date on their calendar.

FOUR WEEKS PRIOR TO START DATE
- Close online application, select participants and send acceptance/decline letters.
- Send email confirming participants and request that they make travel plans.
- Begin compiling travel schedule for all participants.

THREE WEEKS PRIOR TO START DATE:
- E-mail pre-Institute work to participants.
- Finalize all meal arrangements (i.e. dinner reservations, offsite meals, etc.)
• Check in with speakers and/or participants to confirm travel arrangements and event details.

**TWO WEEKS PRIOR TO START DATE:**

• Print/copy nametags and other materials as needed.
• Compile participant notebooks and activity materials (i.e. Passport Activity cards, Maritime Bingo sheets, etc.)
• Finalize number of attendees with hotel and caterer.

**ONE WEEK PRIOR TO START DATE:**

• Send reminder email to all participants with any additional logistics information.

**3 - 5 DAYS PRIOR TO START DATE:**

• Confirm number of attendees with hotel.
• Confirm any and all site tour location requests.
• Confirm transportation services.
• Confirm media services (i.e. A/V, projector) at each location.
• Deliver proper “day of signage” (directional signs or sign for event door) to locations for display

**DAY BEFORE START DATE:**

• Purchase food, drinks, ice, tablecloths, and utensils not supplied by caterer.
• Pick up parking passes and meal vouchers for participants.
• Remind staff to change voicemail and email messages to indicate limited availability to respond to calls/emails during the Institute.
COMMUNICATION TIMELINE

Communicating with the SMART Center is critical to a successful Institute. Following is a planning timeline for communication activities:

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Task</th>
<th>Done</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 Months to One Year Prior</td>
<td>MOU signed by partner institutions</td>
<td></td>
</tr>
<tr>
<td>7-8 Months prior</td>
<td>SMART Team visits partner to tour proposed Institute sites/hotel</td>
<td></td>
</tr>
<tr>
<td>6 Months prior until Institute</td>
<td>Begin bi-weekly Institute planning calls between PI, program manager, partners, and administrative team</td>
<td></td>
</tr>
<tr>
<td>3 Months prior</td>
<td>All Pre-Institute document drafts due</td>
<td></td>
</tr>
<tr>
<td>1 Month prior</td>
<td>All Pre-Institute document revisions due, weekly conference calls to iron out final details/travel plans</td>
<td></td>
</tr>
<tr>
<td>1 Month post-Institute</td>
<td>Stakeholder Debrief call</td>
<td></td>
</tr>
<tr>
<td>2 Months post-Institute</td>
<td>Planning call for following year</td>
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</tbody>
</table>

FINANCING YOUR INSTITUTE

In order to ensure the long-term sustainability of the SMART Center as well as the scalability of the Institute as a model for professional development, the SMART Center will divide certain costs associated with the Institute between itself and the host school. You will be responsible for developing your own budget for the Institute, working closely with the SMART Center PI. Your budget will need to include:

- lodgings
- meals
- A/V or presentation equipment (if not available at your meeting space)
- photographer/videographer
- van rental for location transportation (if not available as a free resource from your college)
- mileage/gas/tolls for local transportation
- expenses associated with tours (i.e. entrance fees)
- materials and supplies (i.e. binders, pens, table tents, nametags, etc.)

The SMART Center will fund the following costs associated with the Institutes:

- lodging for non-local participants and Institute administrators
- meals for all participants (except for 2 dinners)
- office supplies/materials required
- stipend and registration fee—for each participant who completes the Institute (amount to be determined in conjunction with SMART Center)
Make sure that you follow your institution’s purchasing guidelines when making your lodging arrangements/reservations.

You should consider various funding options apart from the SMART Center’s financial support when planning your Institute to defray costs. You may want to look into local, state, or regional grant funding opportunities including industry associations, individual business partners, and educational foundations.

PARTICIPANT EXPECTATIONS
In exchange for the experience, tools, information, and relationships that participants receive through the Institute format the SMART Center requires that participants...

- complete online surveys as requested to capture data about what they did (or did not) implement as a result of attending the Institute
- share information about the SMART Center and the maritime and transportation industry with their faculty and administrators
- curate maritime and transportation-related modules and provide those modules to the SMART Center for dissemination through the website
- post and share notice about the following year’s Institute
- be willing to speak at local, regional and national conferences in conjunction with the SMART Center
- invite SMART Center staff and/or share maritime and transportation-related information including SMART materials at local career days
SELECTING PARTICIPANTS

We have found that an Institute participant pool of 12-20 people is ideal. Assembling a well-balanced cadre of participants is critical to the success of your Institute. You will work closely with the SMART Center PI to pull together the ideal Institute team. She will likely have suggestions of educators and industry leaders possibly from outside your area which can complement your group. When evaluating participants make sure that you take the following into consideration:

✓ you will want a healthy balance of representatives from education and industry partners.
✓ look to compile a group that has a good sampling of:
  o classroom-based teachers,
  o career coaches/guidance counselors, and
  o faculty/administrators
✓ consider important demographic factors such as age of participants, number of years in current position, and previous experience in maritime and transportation industry (or related work i.e. military service)
✓ look for a healthy balance between secondary and post-secondary educational institution representatives

PUBLICITY

The SMART Center will collaborate with you to customize digital and print SMART Institute publicity material including:

✓ flyers
✓ online articles
✓ postcards

We will email our SMART database of more than 2,300 educators and you can send print and electronic mail of publicity pieces to call for applications to your own list of contacts as well.

APPLICATION PROCESS

The SMART Center has a standard web-based application tool which will be the primary tool for creating your SMART Institute cohort. The application enables us to capture critical data about each applicant. You should plan on working closely with the SMART staff to link to the online application from your organization’s website. The SMART staff will provide you with regular updates and access to the applications. We will provide you with a “Save the Date” announcement which will list the application deadline. The announcement will be posted on the SMART website and you can post to yours as well. Once the applications are collected you will work closely with the SMART Center PI to assemble your cohort and then send letters of acceptance. Depending on the number of applications you receive for your Institute you may want to consider creating a wait list and notifying alternates that they will be invited to attend if another member of the initial cohort is unable to make the event.
WORKING FACILITIES

There are two main components to the Institute:

1) on-site meetings and tours with maritime and transportation industry employers
2) collaborative problem-based learning projects

You will need to secure work space where your team can regularly meet in between industry tours and to complete required PBL activities. Your selected workspace must:

- have computers for project work and presentations
- have adequate workspace and comfortable chairs
- either have or be able to accommodate rented presentation equipment (projector, screen)
- have wi-fi internet access
- be large enough for projects that require physical movement
- provide adequate food/beverage service or access during the day
- have onsite working restroom facilities
- be air conditioned
- be within a reasonable distance from the industry sites you’ll be touring
- be within a reasonable distance to the closest airport and/or train station (to accommodate participants’ travel schedules)

Options for your workspace may include the hotel where your participants will be staying, space at your school, space at an industry partner’s site, or a nearby conference facility. If you decide to allow participants to bring their own personal laptops for group work you will need to determine how to secure their laptops if you leave the space for meals or tours.

Each morning you should plan to have an “All Hands on Deck” meeting where you discuss the day – that may be a meeting room in the hotel or even in a section of the lobby.

SMART INSTITUTE REQUIRED SUPPLIES AND EQUIPMENT

Facilitation of a SMART Maritime and Transportation Institute will require that the following equipment is available on-site daily:

- A monochrome laser printer or other inexpensive high-volume printer with two reams of paper
- A minimum of two laptops with MS Office
- Internet Access
- Office supplies to include scissors, scotch tape, 8.5 x 11 card stock, a large quantity of colored notecards, a hole punch, stapler w/staples
- SMART Flash Drives & Ship Drives (approximately one per participant)
- SMART Binders (one per participant plus one per presenter / host)
- SMART Water Bottles (one per participant)
- SMART Bags (one per participant)
- SMART Name Tags (one per participant)
- SMART Passports (one per participant)
- Portable PA System with wireless mic(s)
- Digital Projector and Screen
- Assorted colored Sharpie permanent ink pens
- Current SMART Introduction / Institute Presentation (reviewed for content one week prior to Institute by all presenters)
- Wireless slide presentation controller with dongle
- Digital camera with flash and several large SD cards
- Toiletries – sunscreen, inexpensive rain ponchos, water bottles, and bug spray to prepare for outdoor environments during tours. We also suggest having a small supply of pain medication (i.e. Tylenol, Advil), snacks and water bottles on the vans.
PROJECTS
In previous Institutes participants’ week-long problem-based learning (PBL) projects have involved:

- producing a first-of-its-kind Maritime and Transportation Industry Career Guide
- developing career pathway tools
- producing and field testing an intermodal logistics competition including a robotics component

The SMART Center will provide you with ideas and materials for your PBL activities. In addition you may want to collaborate with the SMART Center PI and staff to identify possible new projects by surveying your local industry and educational partners. Good projects have broad parameters, general objectives, and allow for group problem-solving and creativity to fill gaps in current educational and career materials. You will work closely with the PI to create projects that make sense for your market.

SMART INSTITUTE NETWORKING, TEAM FORMATION AND COHESION
From the beginning of the Institute to the end there is an intense focus on professional networking and team-building that will contribute significantly to SMART’s work and turn participants into partners throughout their careers. Following are teams for facilitating this critical component of the Institute:

- The group introductions, ice-breaker, and dinner together on the first night begins this important formation.
- Introductions of team projects and examples of previous projects completed in SMART Institutes are introduced on day one. Additional details follow on day two. Observation of the participants’ personalities and ability to absorb the information that will be presented is always taken into account in forming teams for the project work.
- On day two teams are announced, following the Institute facilitators’ careful observation of participants and a discussion among SMART Institute leadership of how best to form the Institute teams.
- Transportation is a key component to group formation. For example, the recommended mode of offsite transportation is fifteen passenger vans (to encourage group discussion) and taking a boat ride together one evening (i.e. dinner or harbor cruise) to get a view of the four sectors from the perspective of the water is also a truly formative experience.
- Project time for teams must comprise a minimum of two half-days – while three half days are preferred as permitted by the Institute schedule. The first of these half days should be scheduled on day two or three. The second or third day should be on day five – the day before final presentations will be given.
- Be sure to ask Institute participants not to schedule flights until after 5:00 p.m. on the final day of the Institute so as not to disturb the final proceedings, presentations and networking that occurs with high-level industry partners at the accompanying luncheon.
SELECTING LOCATIONS TO TOUR

The on-site industry tours are one of the most valuable components of the SMART Center Institute. Educators value the opportunity to interact with leaders and workers. Here are some things to consider when selecting a location to tour:

✓ **What segment of the industry does this employer site represent?** (seagoing, ports and logistics, shipbuilding and ship repair, or pleasure craft and marinas). If possible vary your sites so that Institute participants get a broad range of exposure to different employers and work environments.

✓ **How far is the site from your main meeting location?** Site tours make for long days so it’s best to limit your trips to no more than 60-75 miles from your main meeting location. If your tour lasts (on average) 1.5 – 2 hours, adding in travel and meal time that makes for a 5 hour segment of your day.

✓ **What could Institute participants experience during the tour that would be unique from their normal learning environment?** The main value in tours is the immersive experience – educators, counselors, and faculty get to experience what real-life work is like in the maritime and transportation industry. The more access Institute participants have to interesting work areas (i.e. to go on board a container ship, to tour below deck on a navy vessel, to walk through a shipyard) the more impact the tour will have.

When approaching an industry partner about hosting an Institute tour you will want to stress how the tour will be part of a National Science Foundation (NSF) effort to expose and engage educators in the need to increase the number of middle-skill technicians in the maritime and transportation industry. The tour is also a way for the industry partner to educate teachers, faculty, career coaches and guidance counselors who represent a direct connection to hundreds of local students who may be future employees.

In securing a tour site make sure that you ask your industry partner:

✓ Are there security restrictions? Do we need to provide personal information on each participant to access the site (i.e. driver’s license information, etc.)?

✓ Is there recommended clothing (i.e. comfortable shoes, long pants, etc.)?

✓ Could someone from your organization provide a brief introduction and overview for the Institute group prior to the tour?

✓ (If applicable, depending on the time of the tour) Can we provide lunch/snacks and if so, who do we work with to do so?

✓ Can Institute participants hear from current workers either during the site tour or before/after in the meeting space?

✓ Will reserved parking be made available?
Is photography allowed on site? (If applicable) Could we have a photographer and/or videographer shoot during the tour?

After you have secured agreement from your industry partner to host your Institute group for a talk and tour make sure you assign someone from your working group to coordinate directly with the designated person from that firm going forward. You should also bring an Institute notebook so your host knows what events the group is involved in during the week. Invite them to the final day presentation session and consider preparing a small thank-you gift for each industry partner that hosts your group. Work with their marketing team to meet requirements for including them in any print and web-based material you create for the Institute.

Make sure that you communicate any site-related instructions regarding dress and security issues to participants well in advance of the Institute so they can pack appropriately and send or bring any necessary identification.

TRANSPORTATION

You will need to plan for transportation to and from all industry touring sites, the hotel/lodging site, and any additional sites. You will also need to budget for your transportation needs. We strongly encourage Institute hosts to reserve and use fifteen passenger vans for transportation between sites. We have discovered that this transportation method between encourages group interaction. The team formation as well as networking and cross-collaboration are well-served by transporting participants in this method. Therefore – where some may feel that transportation time is time-wasted – we have found this to be the opposite. It is integral to all that we are doing in the SMART Institute.

Provide a transportation print-out for each driver as well as the Institute leaders. It’s probably a good idea to print out Mapquest or Google Maps directions and ensure that each driver and leader have the contact information for each site (i.e. site representative, phone number, address). Use our “Transportation Table” in the Appendix for drivers.

LODGING

In addition to meeting your budgetary requirements and your institution’s procurement procedures, you will need to select a hotel or lodging site that is within a reasonable distance to your tour sites and the airport/train station if you anticipate having participants that will need to come in from out of town. Use our “Lodging Assessment” tool (see Appendix) to evaluate your options.

MEALS

The key to keeping troops engaged is keeping them well-fed! Make arrangements for the following meals:

- Continental breakfast each day (offered at most hotels)
Lunch each day – either on-site during industry tours or the location where your groups are doing project activities. To make it as easy as possible first determine what catering options are available through your school. Industry partners may also be willing to pick up the tab for the lunch/snacks.

Dinner every evening except for 1-2 nights that participants should plan on eating on their own. After full days working on projects and touring sites it is a great idea to have some fun dinners out. These are great bonding experiences for your group and don’t need to be at expensive restaurants. You will need to make sure that there are affordable, accessible (i.e. by taxi or walking) dining options within a reasonable distance from the hotel for the nights that participants will be doing dinner on their own.

Make sure that you note any dietary restrictions or allergies noted in your participants’ applications. For tours, consider bringing a cooler of bottled water so that participants have something to drink when they get back on the van/bus. You may want to also offer some light snacks. Ask ahead to make sure that there is snack service at any site you’re touring (if you are going in between meals) and water/beverages at a minimum. You will also want to check with any caterers you hire that they bring appropriate paper and plasticware for meals and provide trash cleanup.

PHOTOGRAPHY & VIDEO

Getting pictures is a key element of the Institute and will enable you and the SMART Center to more effectively tell your story. Plan to hire a photographer to join you at least on days that you are going to tour sites and preferably for at least a half day during team project sessions. Make sure that you provide the photographer with a complete agenda for the Institute for the days they’re scheduled to shoot as well as contact information. Also, confirm that a photographer will be allowed to join your group and take photos at industry worksites that you are touring – some sites may have security issues that restrict photography in certain areas. You’ll want to know about that ahead of time as well as what credentials your photographer needs to bring in order to get on site (if necessary).

Likewise you may want to consider hiring a videographer to capture portions of your Institute, particularly if you have an interesting work site tour that would lend itself to a wider online audience. Again, get permission in advance to have a videographer accompany you on tours and ensure that any necessary waiver/liability/use forms are prepared and signed in advance. The SMART Center will gladly post videos on its SMART Center website as well as YouTube channel and promote the videos to its extensive network of educators and industry leaders nationwide.

Make sure all participants understand their images may be used in SMART Center materials and that you get several discs of the pictures from the photographer.

PRE-INSTITUTE PREP WORK FOR PARTICIPANTS

We have found that participants come to the Institutes with a wide range of background knowledge and experience. To ensure that the most is made of time “on-the-ground” at the Institute we have developed a core set of “Pre-Institute Prep Work” that we strongly recommend you tailor to your Institute.
MATERIALS

Let our administrative staff know how many of the following items you will need. We will mail these to you well in advance of your Institute start date:

- SMART tote bags ______
- SMART water bottles ______
- SMART flash drives ______
- SMART pens ______
- SMART brochures ______
- SMART folders ______
During the Institute

GETTING STARTED ON THE RIGHT FOOT

Most of your participants will not know one another and a KEY goal of the Institute is to foster relationships between participants so they can maintain contact after the Institute, serve as SMART Ambassadors in their industries and educational institutions, and contribute new materials to the SMART digital repository. Here are a few tips to set the right tone and get started on the right foot:

DAY ONE (Typically this is a half-day i.e. Sunday evening)

- Have each member receive a ‘welcome bag’ at hotel check-in with a letter welcoming them, some goodies, and the Institute binder. The note should include information about the first night’s dinner (assuming that your Institute is starting with dinner on the first night and then formal meetings and tours beginning the following day).

- Have clear signage for the meeting room and snacks on hand. Set tables up in a U shape to facilitate team interaction. Start off with introductions (yourself, your staff, and then each member introducing themselves) and then move into a fun icebreaker like “Maritime Bingo.” During this time note participant interactions to be able to best pair people into teams for projects during the week.

- Provide an overview of the SMART Center, the mission of an NSF ATE Center, and then walk participants through the schedule of events for the week and the notebook.

- Plan to have a group dinner on the first night – this should be at a low-key, preferably fun (!) location where participants can get to know one another to set the stage for good team-building. This is important because people coming in from out of the area or out of town may not have any way to get to dinner on their own and/or not have anyone to dine with.

DAY TWO (First full day)

- Begin your time together with the daily “All Hands on Deck” meeting – have the room set up in a U shape (if you are using a formal meeting room) to facilitate team interaction.

- Do NOT plan to depart the hotel any earlier than 8:30 a.m. We have learned from over 100 participant surveys that participants need to (1) have enough time for breakfast, (2) have time to meet as a group, and (3) hear about the plan and goals for the day before boarding the vans. Additionally, some participants will not be staying at the hotel and need time to commute in. Plan for a 9:00 a.m. depart time and you should have enough time to meet all of those requirements!
• This day will typically start with an industry site tour and include a panel of discussion with industry employees and/or apprentices (depending on your site tour and industry segment). Note participants’ interactions.

DAY THREE
• “All-Hands on Deck” Meeting
• Announce teams for project work
• Industry site tour
• Lunch
• Project Work
• Dinner

DAY FOUR
• “All Hands on Deck” meeting
• Industry site tour
• “Faces of Success” panel discussion with industry employers and workers
• Lunch
• Teamwork
• Dinner

DAY FIVE
• “All Hands on Deck” meeting
• Teamwork
• Lunch
• Industry site tour
• Panel discussion
• Dinner

DAY SIX – Final Day (must wrap by 2:00 p.m. and ensure that no participants have flights scheduled for departure prior to 3:30 p.m.)
• “All Hands on Deck” Meeting
• Teamwork (final touches for presentations)
• Final Presentation, Recognition Ceremony (Lunch to be included)
• Conclusion and departure

Governing SMART Presentations – Final Summation
SMART Institute final presentation and summation will typically include invited distinguished guests from business, industry and government. We must have a predictable, structured summary presentation and group presentations that are timed to fit the published agenda and schedule. Therefore, the final
presentations and associated question and answer session should be timed to ensure that travel plans and schedules of our stakeholders are honored appropriately. One facilitator should time each presentation and apprise each presenter team when they have one minute left and when their time has expired.
DAILY ADMINISTRATIVE TASKS

- Confirm speakers, transportation, catering, rooms and media for the following day.
- Collect any receipts for expense reports.
- Check to ensure all materials are prepared for the following day.
- Distribute and collect each day’s surveys, Passport Activity cards, etc.
- Collect electronic copies of any completed group work for projects.
- Daily operational meetings: discuss what’s happening during the day and make sure that you are relating each day’s events to materials in their notebook. This should happen during a mandatory “All Hands on Deck” meeting at the beginning of each day. This time will give participants a chance to reconnect as a team, ask questions, and for you to set the stage for what they will experience and be asked to do during the day.

PASSPORT ACTIVITY

We have developed a “SMART Passport Activity” to help Institute participants reflect on and document what they learn during the week at the conference. After each major activity the Institute administrative assistants will pass out a series of colored index cards:

- Red: Fun fact learned
- Blue: Interesting question posed by the activity
- Green: Critical thinking activity description
- White: maritime logo, drawing, graphic (sketch)

Participants should have an adequate amount of time (10-15 minutes) to reflect on the experience and complete one of each card. Or, participants can swap cards to come up with the needed four cards following each activity (i.e. if a participant has 3 red cards and one green card completed they could “swap” 2 of their red cards with other team members for a blue and white card). This process helps with lesson reinforcement (for participants), team-building, and feedback for the SMART Center. Upon completing and turning in their set of cards each participant will have their Passport stamped by the Institute administrative assistant. (The SMART Center will provide this Passport stamp)

TOURS

Prior to the tour (either at the meeting location or on the drive over) explain to your Institute participants where you will be going, what segment of the industry the employer represents, and what type of careers are available for students at this site (and similar employer sites). You may want to hand out career pathway tools to show what type of academic choices can take to best prepare for careers in this industry segment and show career videos from the SMART Center website. Remember that participants will need to know not only about this industry segment but HOW their students can best prepare for and enter the industry in this area.
While touring the site make sure that all participants are staying within the designated areas and that no one “wanders.” Emphasize safety throughout the tour. Most tours take place at industrial sites that can present hazards to participants who are not alert and remaining with the group. Encourage participants to ask questions and don’t hesitate to ask questions yourself to get interaction going.

PROJECTS
You will want to divide your Institute participant pool into even groups to undertake the hands-on PBL activities portion of the week-long Institute. You should review the Institute applications to make initial determinations about who should be in which group but you may want to hold off on announcing the groups until after your first meeting so you can get an initial “feel” for how certain people may or may not work well together. These projects require long works of group work (on average at least 3-4 hours per session) and your project coordinator will need to be comfortable not only in explaining the requirements and desired outcomes of each project but also in providing guidance and resolving conflicts as they invariably arise in any group project setting. The project coordinator should complete daily “Observation Sheets” and turn in to the Administrative Assistants.

“Global transport has a huge impact on the environment with the use of fuels, introduction of invasive species, pollution, and more. (As a result of the Institute) I am going to incorporate that into my class but also introduce students to the different career opportunities that are available in the maritime and shipping industry.”

– Melissa Csikari
Science Teacher
Colonial Forge High School
Science Curriculum Director/Co-founder
at the Fredericksburg Parent and Family Science Saturday
Post-Institute

TIMELINE FOR PARTICIPANT FOLLOW-UP
You should have a plan in place to maintain communication with participants following the Institute. Following is a suggested schedule for post-Institute communications:

<table>
<thead>
<tr>
<th>Timeline</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 days after Institute</td>
<td>Thank you note/email with photos</td>
</tr>
<tr>
<td>1-2 weeks after Institute</td>
<td>Email with information on web-based forum for Institute participants</td>
</tr>
<tr>
<td>3 months after Institute</td>
<td>Email with implementation survey (to assess what they have or have not implemented as a result of their participation in the Institute)</td>
</tr>
</tbody>
</table>

DATA COLLECTION
To ensure the long-term sustainability of the SMART Center and to promote the success of the Institute model the Center will collect data from Institute participants on a bi-annual basis. We will email your Institute participants (copying you on all emails) requesting that they complete an online survey which will be tabulated and analyzed for reporting purposes. We will collaborate with you on the data collection and reporting.

PARTNER FOLLOW-UP
It goes without saying that it is important to thank the industry and educational partners who made the Institute possible. Plan to send each partner a formal thank-you note and any additional recognition (i.e. plaque, certificate, etc.) for the partner's time and service. You can also choose to share the post-Institute survey data upon release and the SMART Center's annual report. Please send each partner's contact information to the SMART Center so they can receive our regular print and digital publications.

“Since this Institute, I have gone through Sea Perch training and received a grant for ten kits to participate in the local Sea Perch Challenge. I would not have been so motivated to do so, had I not talked with the kids...who were at the Roboboat Competition. I will add this STEM experience to one of my eighth grade classes. I plan to add a ‘Career Connection’ to my curriculum this year, focusing on all sorts of careers - including apprenticeship careers offered at the shipyards. I hope to have speakers come in to talk to my students. I think the culminating project will be a notebook of careers, written at a middle school level with job description, salary range, places of employment in the area, required schooling, and a photo.”

- Maricar Harris
Virginia Beach Middle School Science Teacher
Appendix

We’ve compiled a set of tools and sample materials that we hope are helpful (and time-saving) when you begin to plan for your own SMART Institute.

A  Frequently-Asked Questions
B  Hotel Selection Checklist
C  Transportation Table
D  Acronym List
E  Maritime Bingo
F  Sample Participant Acceptance Letter
G  Speaker Confirmation Letter
H  Sign In Sheet
I  Evaluation Rubric
J  Activity Feedback Survey
K  Project Observation Form
L  Name Tag Template
M  Non-Credit Application for CEUs from TCC
N  Completed Contracts
O  Binder Checklist
APPENDIX A: FREQUENTLY-ASKED QUESTIONS

Q: What is an NSF ATE Center?

The National Science Foundation Advanced Technological Education (NSF ATE) program was created 20 years ago in response to the need to educate and equip the next generation of technicians in the U.S. Technicians are vitally important to our nation’s prosperity and security. In ATE Centers and Projects, community colleges have a leadership role in working with universities, secondary schools, business and industry, and government agencies to design and implement workforce development initiatives. Learn more about ATE Centers – including the SMART Center – on the ATE Center website (www.atecenters.org/about/).

Q: What is the SMART Center?

A: The Southeast Maritime and Transportation (SMART) Center is one of 41 National Science Foundation Advanced Technological Education (NSF ATE) Centers and the only Center in the U.S. solely focused on increasing the pipeline of trained middle-skill technicians in the maritime and transportation industry. The SMART Center’s host partner is Tidewater Community College (TCC). The Center has an extensive network of partners including community colleges, secondary schools, business and industry partners, and government agencies. Its three goals are increasing career awareness, developing effective career pathways and programs, and serving as a model of effective partnership development.

Q: What is a Summer Maritime and Transportation Institute?

A: A Summer Maritime Transportation Institute is an immersive week-long experience where STEM and CTE secondary school teachers, college faculty, career coaches, guidance counselors, administrators and industry professionals mix tours of local maritime and logistics-themed work sites with work on project-based learning experiences to create products for students and the educational community. It is a key aspect of the SMART Center’s work to increase awareness of career opportunities in the maritime and transportation industry and developing effective career pathways and programs to encourage more students to pursue technician careers within the industry.

Q: Who should attend the Institute and how are participants selected?

A: Teachers, career counselors, administrators and industry professionals are the primary audiences for SMART Institutes. Individual participants are carefully chosen by SMART Center and host partner staff who canvas key industry partners, stakeholders from community colleges, and public school contacts who are asked to nominate their best to attend this transformative training.

Q: How should field trips and tour experiences be selected?

A: Field trips should center around the theme of the four sectors of the maritime industry – Shipbuilding and Ship Repair, Seagoing, Port Logistics, and Pleasure Craft and Marinas. Interactive experiences are preferred. Opportunities to see that which is often unseen are the goal.
Q: How long does a Maritime and Transportation Institute last?

A: SMART Institutes can last from five to seven days. Six-seven days is preferred for a more immersive experience.

Q: How are project teams chosen to work on Institute projects?

A: We form groups after making these close observations of participants as they work together and contribute to discussion and activities. We then assess current project needs. We invite the best people to the SMART Institute and ask them to in turn give us their best. We are rarely disappointed.

Q: How do you facilitate project teams’ work throughout the Institute?

A: We begin by preparing a design brief of a project-based learning activity - then explain it to the group at large – taking any questions and looking for ways to expand ideas. We then allow the groups to work together – the facilitator circulates through each group and asking for questions or concerns. We then allow more group work to take place before introducing a non-facilitator to circulate through the group – asking questions and candidly asking if anyone is confused. This information is then forwarded to the facilitator who again moves through each group – addressing the concerns that were collected.

Q: How do you document the Institute’s impact?

A: We document the Institute’s impact through surveys, focus groups, a mid-year follow-up session and collection of data from affected institutions throughout the year.

Q: What is the importance of involving partners from industry, government, and various levels of the educational community?

A: The goal of any SMART Institute is to engage industry with secondary and post-secondary education to develop a dynamic partnership that will develop the “pipeline” of future industry professionals that are needed to propel our economy and our society toward a stable and satisfying future.

Q: What are some methods of integrating maritime terminology into the Institute before and during the experience?

A: We provide pre-Institute materials for each participant to review before arriving onsite. During our first session we start participants out playing “Maritime Bingo” as an icebreaker activity. Participants document their learning through daily surveys and Passport Activities.

Q: What do completed Institute projects look like?

A: Completed Institute projects are presented to a high-level audience at the final presentation event and completion ceremony at the end of each institute. Projects are documented with a PowerPoint presentation that uses pictures, text and links to showcase the group’s product.
Q: How do you visually document the results of the Institute formatively and post-Institute?

A: During the institute we formatively assess with observation forms (found in the appendix of this document.) We put on a two-day follow-up conference where participants are interviewed to determine the impact of the institute on participants and their schools or employment.

Q: How do you generate publicity for the Summer Institute?

A: Recruiting documents are distributed to partner institutions, schools, industry partners and business in the early spring to advertise our SMART Institutes to these stakeholders.
APPENDIX B: HOTEL SELECTION CHECKLIST

<table>
<thead>
<tr>
<th>Hotel Name:</th>
<th>Hotel Name:</th>
<th>Hotel Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance to meeting space</td>
<td>Shuttle service to airport?</td>
<td>Taxi fare from airport</td>
</tr>
<tr>
<td>Breakfast? Cost?</td>
<td>Lunch and dinner service?</td>
<td>Approximate cost of lunch and dinner per person</td>
</tr>
<tr>
<td>Wi-fi access?</td>
<td>Restaurants within walking distance?</td>
<td>Meeting rooms availability? Rate?</td>
</tr>
<tr>
<td>Meeting room set-up charge? Rate?</td>
<td>In-house A/V? Rate?</td>
<td>Business center with computers, printer, internet access?</td>
</tr>
<tr>
<td>Late check-out?</td>
<td>Parking? Cost daily?</td>
<td>Fitness center/Pool?</td>
</tr>
<tr>
<td>Room rate?</td>
<td>Contact information: Name: Phone: Email:</td>
<td>Name: Phone: Email:</td>
</tr>
<tr>
<td>Contact information: Name: Phone: Email:</td>
<td>Name: Phone: Email:</td>
<td>Name: Phone: Email:</td>
</tr>
</tbody>
</table>
# APPENDIX C: TRANSPORTATION TABLE

## Institute Transportation Table

<table>
<thead>
<tr>
<th>Day</th>
<th>Meeting Place/Time</th>
<th>Destination/Departure Time</th>
<th>Driver Phone #</th>
<th>Tolls? $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 1</td>
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<tr>
<td>Day 2</td>
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<td>Day 3</td>
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<td>Day 4</td>
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<td>Day 5</td>
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<tr>
<td>Day 6</td>
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</tbody>
</table>
## APPENDIX D: ACRONYM LIST

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>AACC</td>
<td>American Association of Community College</td>
</tr>
<tr>
<td>A.A.S.</td>
<td>Associates of Applied Science</td>
</tr>
<tr>
<td>ABYC</td>
<td>American Boating Yachting Council</td>
</tr>
<tr>
<td>ATE</td>
<td>Advanced Technological Education</td>
</tr>
<tr>
<td>AWS</td>
<td>American Welding Society</td>
</tr>
<tr>
<td>CSC</td>
<td>Career Studies Certificate</td>
</tr>
<tr>
<td>CTE</td>
<td>Career Technical Education</td>
</tr>
<tr>
<td>GPS</td>
<td>Global Positioning System</td>
</tr>
<tr>
<td>MARAD</td>
<td>U.S. Department of Transportation – Maritime Administration</td>
</tr>
<tr>
<td>MMC</td>
<td>Merchant Mariner Credential</td>
</tr>
<tr>
<td>NASDCTEC</td>
<td>National Association of State Directors of Career Technical Education Consortium</td>
</tr>
<tr>
<td>NSF</td>
<td>National Science Foundation</td>
</tr>
<tr>
<td>STEM</td>
<td>Science, Technology, Engineering and Mathematics</td>
</tr>
<tr>
<td>TWIC</td>
<td>Transportation Worker Identification Credential (TWIC)</td>
</tr>
<tr>
<td>USCG</td>
<td>United States Coast Guard</td>
</tr>
<tr>
<td>U.S. DOL</td>
<td>U.S. Department of Labor</td>
</tr>
<tr>
<td>U.S. DOT</td>
<td>U.S. Department of Transportation</td>
</tr>
<tr>
<td>USMMA</td>
<td>U.S. Merchant Marine Academy</td>
</tr>
</tbody>
</table>

### Others

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
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</table>
APPENDIX E: MARITIME BINGO

The maritime bingo game is an icebreaker designed to help people begin to get to know one another and learn a few things right at the start of the Institute.

Instructions

- Make copies of the following SMART Maritime Bingo card or complete a blank one, customized for your area and industry focus.
- Distribute the cards to participants.
- Instruct participants to find other Institute members who meet the descriptions in each box and have them initial that box. Different names must be used in each square.
- When someone has an entire row (horizontal, vertical, or diagonal) completed, they should call out “Bingo!”
Maritime bingo card

<table>
<thead>
<tr>
<th>Has been on an aircraft carrier.</th>
<th>Knows what a restroom on a ship is called</th>
<th>Knows the four cardinal directions on a ship</th>
<th>Knows what ATE stands for in the acronym NSF ATE</th>
<th>Has ridden on a wind-powered vessel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has worked in shipbuilding or ship repair</td>
<td>Has worked in career technical education</td>
<td>Can list 3 reasons a business would use maritime transportation</td>
<td>Knows how modern cargo amounts are measured</td>
<td>Can name 3 maritime fuels</td>
</tr>
<tr>
<td>Can name 7 maritime careers</td>
<td>Knows what MARAD stands for</td>
<td>Knows the conversion between knots and MPH</td>
<td>Can describe how channels are maintained</td>
<td></td>
</tr>
<tr>
<td>Knows what TWIC stands for</td>
<td>Knows how maritime vessels get electric power</td>
<td>Has traveled to one or more continents by maritime transportation</td>
<td>Has watched Captain Phillips</td>
<td>Knows what a sleeping area on a ship is called</td>
</tr>
<tr>
<td>Knows how many maritime academies there are in the U.S.</td>
<td>Has counseled college students about careers and career pathways</td>
<td>Knows what organization regulates safety in U.S. waterways</td>
<td>Can list the forms of intermodal transportation</td>
<td>Has toured a U.S. port</td>
</tr>
</tbody>
</table>
Blank Maritime bingo card
APPENDIX F: SAMPLE PARTICIPANT ACCEPTANCE LETTER

Date

Jane Doe
Teacher
Seashore High School
1234 Tidewinds Way
Anywhere, USA 1234

Dear Ms. Doe,

Congratulations on being selected to attend the (year) SMART Maritime and Transportation Institute!

For our out-of-town participants please book your travel to (site) and back using your personal credit card. Plan to arrive by (time) on (day/date) as we begin at (time) on (day/date). Please email (name, email address) your arrival and departure times as soon as you book your travel. You should plan on taking a taxi from the airport or train station to the (hotel name). If you are driving to the (meeting site), park (insert parking location here); we will provide parking vouchers. Rooms are being held at the (lodging site) - one will be held in your name as soon as we receive your arrival confirmation information - please do not contact the hotel to make your own arrangements. You MUST collect all expense-related receipts to (name, title) upon your arrival to speed the reimbursement process.

Everyone should plan to dress comfortably during the Institute. We will be touring industrial environments so you will need to pack closed-toed shoes and long pants for days that attire is required. You will need to bring a photo ID with you to gain access into some of our touring sites. The weather will most likely be hot so bring sunscreen, bug spray, and a water bottle. However our meeting spaces will be cool, so pack a light sweater or jacket just in case.

Regarding meals, plan on eating at least one dinner on your own. We will provide the rest, and once the final schedule is complete, we’ll know which evening you’ll be on your own. Also, please let me know if you have any dietary restrictions. We will do our best to accommodate those we’re made aware of. The Institute promises many incredible experiences as well as useful ideas and concepts to bring back to your classroom and students. Please let me know if you have any questions. More to come! Sincerely,
APPENDIX G: SPEAKER CONFIRMATION LETTER

Date

Mr. Eric Executive
Company ABC
1234 Maritime Way
Anywhere, USA  12345

Dear Mr. Executive,

Thank you for agreeing to speak to the (year) SMART-(your institution) Maritime Transportation Institute. The Institute is a unique professional development opportunity for secondary and post-secondary educators, faculty, administrators, guidance counselors, and career coaches to interact with industry leaders. Our goal for the Institute is to help increase educators’ awareness about career opportunities in the maritime and transportation industry and to collaborate with participants to create materials, curriculum, pathway tools, and programs for them to help us increase the number of skilled technicians in the industry pipeline. Another important goal of the Institute is to foster partnership development between educators and industry employers to benefits schools and students. Your involvement in the Institute will help us achieve this goal.

We look forward to hearing from you at (time) on (date). As agreed we will arrive by (transportation) at (location) to check-in and will proceed to (location). I appreciate your assistance in providing (meal) for our participants while on-site. Please let me know what additional arrangements I will need to make to ensure that this is a seamless event and one that it well worth your time.

I appreciate your assistance and involvement. We look forward to being with you on the (date)!

Sincerely,
APPENDIX H: SIGN-IN SHEET

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>School/Company</th>
<th>State</th>
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<tbody>
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</tbody>
</table>
APPENDIX I: EVALUATION RUBRIC – TEAM PROJECTS

Sample Observation Grid

<table>
<thead>
<tr>
<th>Task</th>
<th>Exemplary (4)</th>
<th>Very Good (3)</th>
<th>Good (2)</th>
<th>Developing (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outline &amp; Sketches</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Hands-On Research / Problem Solution</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Still Graphics &amp; Animations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Story-board &amp; Script (other media)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FAQ</td>
<td></td>
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</tr>
<tr>
<td>Depth of Content</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

*(Note: Please customize this to your specific Institute and team projects using grid below)*
APPENDIX J ACTIVITY FEEDBACK SURVEY

Institute Daily Survey: Date: ______________

Your rating, comments and input are IMPORTANT in helping us evaluate and improve these workshops. Thank you for taking time to think about and respond to the following questions.

1. **Please indicate how strongly you agree with the following statements about the day’s activities:**

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>The registration process was efficient and easy to use.</td>
<td>☐ ☐ ☐ ☐</td>
<td>☐ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>The presentation on the SMART Center had new information for me.</td>
<td>☐ ☐ ☐ ☐</td>
<td>☐ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>The problem-based learning exercise was useful.</td>
<td>☐ ☐ ☐ ☐</td>
<td>☐ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td>The explanation of the passport activity was clear.</td>
<td>☐ ☐ ☐ ☐</td>
<td>☐ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td>e.</td>
<td>The presentation by (name, title) contained useful information.</td>
<td>☐ ☐ ☐ ☐</td>
<td>☐ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td>f.</td>
<td>The presentation by (name, title) contained valuable information.</td>
<td>☐ ☐ ☐ ☐</td>
<td>☐ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td>g.</td>
<td>The tour was useful.</td>
<td>☐ ☐ ☐ ☐</td>
<td>☐ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td>h.</td>
<td>The group activity was a good use of time and helped us get to know one another.</td>
<td>☐ ☐ ☐ ☐</td>
<td>☐ ☐ ☐ ☐</td>
<td></td>
</tr>
</tbody>
</table>
2. *My learning of the following topics for the day improved significantly in:*

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. *Comments*

   a. What aspect of this day was particularly beneficial or significant to you?

      _____________________________________________________________
      _____________________________________________________________
      _____________________________________________________________
      _____________________________________________________________
      _____________________________________________________________
b. What would you change to improve the workshop today?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________


c. Do you have any other comments about today?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Thank you for sharing your opinions. They will have a significant impact on all future SMART Maritime Transportation Institutes!

Sincerely,

Barbara Murray
SMART Center Principal Investigator (PI) and Director
APPENDIX K: PROJECT OBSERVATION FORM

Information for Observer

Overall goals for this module of the Institute:

- Gain a better understanding of how desired student learning outcomes can result from using problem-based learning methodology and competition in particular.
- Learn from and apply knowledge gained from peers to improve student learning.
- Participate debriefs after tasks.

Activities you will observe include:

- Discussion of the instructions and goals.
- Development of a plan to complete the assignment.
- Completion of tasks (such as development of an organization chart, choice of media, choice of graphical representation, links to deeper information on the topic, etc.)

Observation Questions:

<table>
<thead>
<tr>
<th>Question</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do the instructions appear to be clear to the group? How can you tell?</td>
<td>(statements you hear, actions or behaviors you observe)</td>
</tr>
<tr>
<td>Is there confusion? If so, what are participants confused about?</td>
<td>How can you tell? (statements you hear, actions or behaviors you observe)</td>
</tr>
<tr>
<td>Question</td>
<td>Answer</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>How does the group organize itself to complete tasks? (task assignments, sub-groups, etc.)</td>
<td></td>
</tr>
<tr>
<td>What challenges does the group encounter in working on the assignment?</td>
<td></td>
</tr>
<tr>
<td>How does the group address problems and challenges of the assignment?</td>
<td></td>
</tr>
<tr>
<td>How effective was the leader? (Did the team follow or resist the leadership? Was the leader inclusive of all group members and ideas? How did he or she support the group in making decisions, etc.)</td>
<td></td>
</tr>
<tr>
<td>How does the group go about completing tasks?</td>
<td>Comments (Statements you hear; activities/behaviors you observe; what are they actually doing (i.e. organizing work space, developing org chart, choice of media, choice of graphical representation, links to deeper information on the topic); what questions you hear them asking of each other, etc.)</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>• Individual members working alone</td>
<td></td>
</tr>
<tr>
<td>• Pairs of participants</td>
<td></td>
</tr>
<tr>
<td>• Small groups (3 or more participants working together)</td>
<td></td>
</tr>
<tr>
<td>• The whole group</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cognitive Activity</th>
<th>Comments (Statements you hear, actions or behaviors you observe)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Receipt of knowledge</td>
<td>Includes instructions, getting questions answered</td>
</tr>
<tr>
<td>Applied procedural knowledge</td>
<td>Knowledge construction</td>
</tr>
<tr>
<td>------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td><em>Includes such things as skill building and performance. It may be interactive or with others or done alone.</em></td>
<td><em>Includes such things as comprehension building, knowledge generation, inventing, pre-writing activities, clarifying questions, collaborative activities, problem solving, co-construction of meaning, organizing, revising, elaborating, constructing conceptual maps, observing, and describing.</em></td>
</tr>
</tbody>
</table>
APPENDIX L: NAME TAG TEMPLATE
APPENDIX M: NON-CREDIT APPLICATION FOR CEU FROM TCC
APPENDIX N: COMPLETED CONTRACTS

Behind this section store copies of completed contracts such as:

- MOU with SMART
- Quotes for lodging, meals
- Receipts
- Institutional request forms (i.e. for vans, catering, etc.)
- Completed forms for site visits, event requests
- List of drivers’ license numbers for port or site tours
- Other reporting (i.e. time/effort sheets for your college to track hours)

We recommend including a plastic sleeve to keep copies of documents (i.e. tax I.D. card for your college, receipts).
# APPENDIX O: BINDER CHECKLIST

<table>
<thead>
<tr>
<th>Binder Content</th>
<th>Description</th>
<th>Checklist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front Cover</td>
<td>Current Institute Cover (Color)</td>
<td></td>
</tr>
<tr>
<td>Name Badge &amp; Lanyard</td>
<td>(inside sleeve)</td>
<td></td>
</tr>
<tr>
<td>1 Sheet 8.5 x 11 Card Stock</td>
<td>For Tent Card (inside sleeve)</td>
<td></td>
</tr>
<tr>
<td>Table of Contents</td>
<td>(numbered per tab)</td>
<td></td>
</tr>
<tr>
<td>Tabbed Numbered Index</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What is an ATE Center</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMART Brochure</td>
<td>Trifold</td>
<td></td>
</tr>
<tr>
<td>SMART Institute</td>
<td>One-pager</td>
<td></td>
</tr>
<tr>
<td>SMART Maritime Bingo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMART Maritime Dictionary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMART Passport Description</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colored Notecards</td>
<td>One set – Four colors</td>
<td></td>
</tr>
<tr>
<td>SMART Four Sectors</td>
<td>Graphic – Ships Wheel</td>
<td></td>
</tr>
</tbody>
</table>