Iowa Gravel Series
Volunteer Training

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OPWL 537 Instructional Design

Learner and environmental analysis (LEA), Task Analysis (TA), and Learning requirements analysis (LRA)

Boise State University

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Project assumptions:

- A needs assessment has revealed that performance-based learning and development intervention is needed because the root cause of a worthy performance gap is a lack of knowledge/skills.
- Adequate sponsorship exists for the project.

Project focus

Verify project assumptions and begin to develop organizational intelligence.

Insert your answer under each relevant question.	
Q1: Describe the organization and its mission (why it exists).	
A1: The mission of the Iowa Gravel Series is to connect people and communities through gravel road races and adventures. The 2024 Iowa Gravel Series comprises 7 endurance races for cyclists and runners, held on open roads and trails, featuring distances of 50km/100km for biking and 10km for running, each supported by a small team of volunteers, including aid station workers, a sweeper, a photographer and registration assistants.	
Q2: Describe the socio-physical context and the overall *problem* or improvement/innovation *opportunity* in that context. (e.g., describe the lab/organization in a physical sense, as well as who works there, what the nature of their work is, and the current problem or an improvement/innovation opportunity).	
A2: The IGS board would like to improve the customer service experience for the riders, as well as ensure safety. The organization comprises one series director (Chris) and several board directors (Ian, Michelle, Dave, Casey). The goal of the project is to provide training for volunteers (some do not have any experience). While these volunteers are dedicated, many lack direct experience in endurance events, potentially leading to gaps in understanding racer needs and duties, though they are responsible for logistical tasks and may need to address occasional medical or mechanical issues during the races. The aid station environment typically includes a table and a couple of chairs, sometimes accompanied by a tent for shade. Essential supplies such as water jugs, a Gatorade-type drink, ice, and various snacks like pickles, bananas, and granola bars are available. A trash bag is provided for disposal purposes. Depending on the size of the race field, there are typically 2-3 volunteers present to assist. Additionally, a basic first aid kit is on hand to address any medical needs that may arise.	
If you are dealing with a *problem*, continue with this column.	**If you are dealing with an improvement/innovation *opportunity*, continue with this column.**

Q3-1: Is there *really* a problem, and what evidence do you have? (e.g., Who says there is a problem and why? Do others perceive it as such? When was the problem first noticed? How pervasive is it? In what ways does it affect the mission of the organization?)	**Q3-2: Was the opportunity influenced by outside forces or the internal desires, or both, and how so?** (e.g., outside forces such as changes in tools, policies, federal regulations, competitors, etc., or internal desires such as changes in the organization's mission, current employee characteristics, motivation, creativity, innovative practice, etc.)
A3-1:	A3-2: Internal: the board members have a desire to expand and improve the IGS races.
Q4-1: In terms of the outcome-level performance, what is happening now? (e.g., How are people presently performing? What results – levels of output and quality – are now being achieved?)	**Q4-2: What is the new goal to achieve?** (i.e., When the identified improvement/innovation opportunity is accomplished, what results do you expect to be achieved by employees?)
A4-1:	A4-2: To provide excellent customer service to the riders so that riders return and recruit other riders.
Q5-1: In terms of the results-level performance, what should be happening? (e.g., What are the relevant work standards or performance goals? What is the relationship between the strategic business plan and employee performance? What results should be achieved by employees?)	**Q5-2: Would the new goal conflict with any existing ones?** (e.g., Will other goals have to be sacrificed when this new goal is pursued?)
A5-1:	A5-2: No.
Q6-1: How wide is the performance gap between "what is" and "what should be"? (e.g., What historical trends are evident? Is the gap increasing over time? What effects of the gap are evident in the organization? How does the gap affect individuals in the targeted group/anyone outside of it?)	**Q6-2: Is the new goal feasible? Are there resources to support the new goal?**
A6-1:	A6-2: Yes, the goal is feasible. The IGS is growing and expanding. Board members of IGS as well as people in the local communities are helping.

Q7-1: Was the performance gap caused by human factors (e.g., lack of knowledge, skills, or attitudes) rather than, or in addition to, individual-, group-, or organization-level environmental factors (e.g., lack of feedback, lack of tools, lack of incentives), and what evidence is there to support it?	**Q7-2: Can the new goal be achieved or supported by providing employees with training, and how so?**
A7-1:	A7-2: Yes, there is currently very limited training offered to the volunteers, so providing comprehensive training will give the volunteers the necessary knowledge and skills to provide excellent customer service and ensure safety.

Q8: What should be changed in employees/learners - *primarily* their knowledge, skills, or attitudes? (e.g., knowledge = leadership methods, skills = how to operate a machine, attitudes = willing to use a new approach)

A8:
Sweeper: The sweeper must possess a copy of the route, typically accessible on their phone or another device, and drive the entire route on the day of the event. Additionally, they are responsible for retrieving signs along the route and potentially assisting a rider and their bike if needed. Having basic bicycle repair skills, such as changing a flat tire, would be advantageous for the sweeper. Furthermore, they should be vigilant for signs of health issues such as dehydration or heat exhaustion.

Aid station volunteer: How to set up an aid station, offer water and snacks to riders. Be aware of signs of health concerns (dehydration, heat exhaustion).

The attitude of all volunteers should be to take initiative, be upbeat, and be alert.

Learner and Environmental Analysis (LEA)

Analyze the characteristics of target learners who will use the instruction and the learning/work environment where they will use the new information they learned.

Q2: Describe how you will collect data about the learners and from whom you will collect the data. (e.g., interview with the client and/or a subject matter expert, observation of target learners, review of job descriptions, etc.) **Hint:** You can find more information about task types in Giacumo et al., chapter 5, section "Learner and Environmental Analysis."
A2: Data will be collected by interviewing the subject matter expert, Michelle, the founder of the organization, Chris, as well as a returning volunteer. No existing extant data has been provided by the client.
Q3: Describe cognitive characteristics of the learners and their prior knowledge. (e.g., aptitudes, scope of knowledge/academic preparation, job category, sustained attention, speed needed for processing information, recognizing patterns, etc.) **Hint:** You can find more information about task types in Giacumo et al., chapter 5, section "Step 2. Collect and Analyze Data about Learners." **Q3-1: What do those characteristics and/or any limitations in them mean for determining what information and techniques/strategies to use in designing the targeted tasks?** (i.e., if you would present information in a certain way or use/avoid specific instructional strategies)
A3: The learners are all able to follow instructions, have a background in a diversity of job categories and are able to sustain sufficient attention to material so long as there are breaks. Some of the volunteers have experience with the aid stations and may need to compare their work to optimal performance. A3-1: The training would need to include breaks and if the training was being led in person, there would need to be refreshments to allow learners to relax and be ready to continue learning. We would also need to include visuals of an optimal depiction of an aid station and one that is set up incorrectly for learners to identify areas they may need to improve on if they have taken on this role in the past.
Q4: Describe demographic characteristics of the learners. (e.g., age, gender distribution in the workplace, any other demographic factors, etc.)

Hint: You can find more information about task types in Giacumo et al., chapter 5, section "Step 2. Collect and Analyze Data about Learners."

Q4-1: What do those characteristics and/or any limitations in them mean for determining what information and techniques/strategies to use in designing the targeted tasks?
(i.e., if you would present information in a certain way or use/avoid specific instructional strategies)

A4: Volunteers for these events typically do not include children and comprise a diverse range of individuals aged between 18 and 65 years old. The volunteer demographic usually consists of 75% male and 25% female participants. While there are typically no physical impairments among volunteers, there are no restrictions, meaning individuals with disabilities, such as those using wheelchairs, are welcome to volunteer, particularly at the start/finish line.

A4-1: Since the age range and diverse backgrounds of volunteers, the tasks should be communicated clearly and concisely to accommodate varying levels of experience and familiarity with the tasks at hand. Instructional strategies should consider the predominantly male demographic, however, as long as the information is depicted in an easy to understand and simple way, the audience of learners will still be able to comprehend the learning.

Q5: Describe physical characteristics of the learners.
(e.g., how much orientation or capacity they have or need to have for sound, smell, positioning, shapes, etc.)

Hint: You can find more information about task types in Giacumo et al., chapter 5, section "Step 2. Collect and Analyze Data about Learners."

Q5-1: What do those characteristics and/or any limitations in them mean for determining what information and techniques/strategies to use in designing the targeted tasks?
(i.e., if you would present information in a certain way or use/avoid specific instructional strategies)

A5: Volunteers must be able to see racers from a distance down the road and identify how many are 'rolling in' to the aid station. Identifying if anyone is struggling and responding accordingly.

Requirements: Water jugs are heavy (big orange jugs with white lids) which would require 2 people. They would need to physically be able to reach, bend over. Being alert and able to remember a general head count of racers who have passed through is helpful.

They should also be able to tolerate high temperatures and uncertain weather such as rain.

A5-1: Tasks should be presented in a straightforward manner, conveying the importance of being able to spot racers from a distance and assess their condition upon arrival at the aid station. Specific instructions should be provided regarding handling heavy water jugs, including the necessity of teamwork and physical requirements needed to lift and maneuver them. There should also be strategies for maintaining alertness and memory recall, such as frequent check-ins and mental noting of passing racers.

Q6: Describe affective characteristics of the learners.
(e.g., interests, motivation, attitude toward subject matter, anxiety, beliefs, 'locus of control' meaning how much control people have over outcomes, etc.)

Hint: You can find more information about task types in Giacumo et al., chapter 5, section "Step 2. Collect and Analyze Data about Learners."

Q6-1: What do those characteristics and/or any limitations in them mean for determining what information and techniques/strategies to use in designing the targeted tasks?
(i.e., if you would present information in a certain way or use/avoid specific instructional strategies)

A6: For the most part, the racers involved live nearby where the race is located and we also seek out volunteers within the community so they are all working together in a fun environment. The sweeper is offered a gas card certificate. Free lunch is provided for all volunteers.

Volunteers are also motivated because they want to support someone in a race. They used to race, but now they're not able to race anymore because of an injury, lack of training time, etc. They want to continue to be part of the community, show support for their friends, etc.

A6-1: Knowledge and skills could be presented in a way that emphasizes the fun and supportive environment of the event, highlighting the opportunity for volunteers to work together and support their friends and neighbors. We could mention the material incentives as a part of motivating learners while they undergo training but it is not a high priority.

Q7: Describe socio-cultural characteristics of the learners.
(e.g., relationship to peers, feelings toward authority, role models, cooperation vs. competition tendencies, cultural factors, etc.)

Hint: You can find more information about task types in Giacumo et al., chapter 5, section "Step 2. Collect and Analyze Data about Learners."

Q7-1: What do those characteristics and/or any limitations in them mean for determining what information and techniques/strategies to use in designing the targeted tasks?
(i.e., if you would present information in a certain way or use/avoid specific instructional strategies)

A7: The volunteers are very cooperative and friendly towards others. Sometimes the volunteers are friends/family of each other or someone who is racing. They are mostly local. Board members or prior volunteers would be their role models. They are always willing to accept authoritative direction and instruction.

A7-1: We could use the board members' names for scenarios and contextualize the setting so that we include more of the local area in the design of the training through descriptions, references to names of places, and pictures/visuals of local areas.

Q8: Describe prior knowledge of the learners.

(e.g., prior education level, reading level, related training completed, experience with relevant job tasks, length in job, other related job experience)

Hint: You can find more information about task types in Giacumo et al., chapter 5, section "Collect Data about Prior Knowledge."

Q8-1: What do those characteristics and/or any limitations in them mean for determining what information and techniques/strategies to use in designing the targeted tasks?
(i.e., if you would present information in a certain way or use/avoid specific instructional strategies)

A8: Volunteers typically have a high school diploma and may have some college education. Thus, learners are able to comprehend English at at least a high school level. There are varied levels of experience. Being able to read the training doc would be necessary. Some are racers (bikes, runners) so are already familiar with races and how aid stations work.

A8-1: The training should still encapsulate the basics of each role for volunteers without neglecting or generalizing tasks as not all volunteers are experienced with the Gravel Series. The language within training materials should not be above a high school level.

Q9: What is your current understanding of the potential for learner motivation?

(e.g., learner goals for completion of the training, perceived utility of the training, perceived accountability for mastery and application in the workplace, attitudes towards job aids and training)

Hint: You can find more information about task types in Giacumo et al., chapter 5, section "Learner Motivations."

Q9-1: What do those characteristics and/or any limitations in them mean for determining what information and techniques/strategies to use in designing the targeted tasks?
(i.e., if you would present information in a certain way or use/avoid specific instructional strategies)

A9: According to the SME, the learners are eager to learn and are motivated to contribute to their community and support friends and family in the race.

Q10: What is your current understanding of the factors in the learning environment that may affect instruction/training?

Hint: You can find more information about task types in Giacumo et al., chapter 5, section "Step 5. Collect and Analyze Data about Environmental Factors."

Q10-1: What do those characteristics and/or any limitations in them mean for determining what information and techniques/strategies to use in designing the targeted tasks?
(i.e., if you would present information in a certain way or use/avoid specific instructional strategies)

A10: If the training is done online, there could be limitations such as access to technology (owning a computer or smartphone), computer literacy, and lack of familiarity with elearning in general.

If the training is done in person, there could be limitations in terms of time (being able to get everyone together at the same time and place).

A10-1: It isn't clear yet which barriers are the most serious. We are currency negotiating with the client to decide if we will create a bare-bones elearning or an instructor-led training.

Q11: What is your current understanding of the factors in the learning environment that may affect the transfer of training to the performance environment?

Hint: You can find more information about task types in Giacumo et al., chapter 5, section "Transfer environment."

Q11-1: What do those characteristics and/or any limitations in them mean for determining what information and techniques/strategies to use in designing the targeted tasks?
(i.e., if you would present information in a certain way or use/avoid specific instructional strategies)

A11: A bare-bones elearning may not be engaging enough to ensure transfer of training. For this reason, we are negotiating an instructor-led training. In case an instructor-led training is not approved, we will build a bare-bones elearning and suggest the client to work with an elearning student team to create a proper, interactive elearning.

A10-1: A barebones elearning (powerpoint slides with a voice over) will not offer opportunities for learners to practice their tasks or participate in engaging activities. It is possible that the elearning would not improve their knowledge or skills at all. If the elearning is boring, the learners may choose to skip it and come to the race expecting to be taught on the job. Highly motivated learners will probably still learn something, but it will not be as effective as interactive elearning or an instructor-led training.

Adapted from Giacumo et al. (2023); Pokimica (2022); and Smith and Ragan (2005)

Task Analysis (TA)

Conduct a task analysis by starting from the critical tasks which will initiate the direction and focus of your task analysis: Analyze critical task(s) –> Break down individual learning steps along with prerequisites.

Insert your answer under each relevant question.
Q1: Which type of task analysis(es) are you completing? The taxonomy from our course book is: ● Analyze a procedure ● Analyze concepts ● Analyze a process For example, this learning goal statement - "Given a chemical respirator with new cartridges available, the learner will replace the respirator cartridge according to the cartridge change schedule." – would involve c*ompleting a procedure… that is, if the learners were already able to determine what a chemical respirator is, what cartridges are, and what an appropriate change schedule is*. If learners did not have the ability to apply those concepts to make decisions relating to selecting appropriate equipment on appropriate dates, then you would have to expand the intervention to include those tasks too. **Hint:** You can find more information about task types in Giacumo et al., chapter 5, sections "Analyze Procedures," "Analyze Concepts," and "Analyze Processes." For the purposes of the OPWL 537 course, I recommend you manage your workload by selecting a task that it takes *approximately 45 minutes to 1 hour* of in-person instruction for learner mastery. Consider this: Do less, better. If you can design for 1 hour, you can design for 101 hours.
A1: Analyze a procedure: setting up and breaking down an aid station, driving the route and picking up signs. Analyze a process: identify participants who are ill and provide assistance.
Q2: Describe data sources used for task analysis (e.g., interview, observations, focus groups, survey, website/document review, etc.) [e.g., High chances are you will speak with the client and a subject-matter expert (SME)
A2: Interviewing SME Michelle Cleasby and Volunteer Dave. Viewing photos of aid stations and videos of how aid stations are set up.
Q3: What are the critical, difficult, and complex aspects of this/these tasks?

Insert your answer under each relevant question.

Suggested data collection questions include:

- What should learners be able to do after completing this L&D intervention that they couldn't do before?
- What makes this particular task critical? Why is it important to perform it correctly?
- What, if anything, is difficult about performing this critical task? Why is it hard?
- What, if anything, is complex about performing this critical task? What makes it complex?

Hint: You can find more information about task types in Giacumo et al., chapter 5, section "Collect and Analyze Data about Critical Tasks."

A3: Create a welcoming environment, and want the racers to have a great day in the saddle. We want the racers to return each year and tell their friends so that we can grow the series. With any race, there are risk factors and we need to be sure everyone feels safe at our events. People can get nervous at these events, especially first timers so we want to help calm their nerves knowing that there is always help if needed.

Learners should be able to provide excellent customer service to race participants by answering their questions, helping them when needed and providing drinks or snacks.

They should also be able to identify riders who are ill from dehydration and heat exhaustion and know what to do and who to contact in emergencies.

According to the SME, the difficulty of the customer service tasks is low. It may be difficult to remember signs of illness or what to do in an emergency situation, so a job aid would be helpful.

Q4: What are the cues that initiate the task performance?

For example, when do learners do this task? What happens that lets them know it's time to engage in the task.

Hint: You can find more information about task types in Giacumo et al., chapter 5, section "Collect and Analyze Data about Critical Tasks."

A4: The organizers coordinate with the volunteers prior to the event explaining time of arrival to the event, where and when they would need to set up. They also review with them the day of once they get to the event start location.

Customer service tasks cues are: seeing riders approaching the aid station.

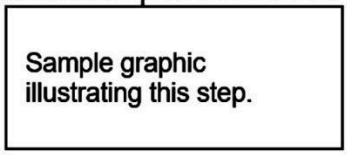
Aid station #1 generally set up one hour after race starts, Aid station #2 two hours after. Sweeper would need to start one hour after start time, and end when all riders finish and signs are picked up.

Insert your answer under each relevant question.
Q5: What are the resources different performers use when they perform the task? For example, do different people use different resources at different locations? At different levels? At different times? **Hint:** You can find more information about task types in Giacumo et al., chapter 5, section "Collect and Analyze Data about Critical Tasks."
A5: Aid station volunteers will need their own personal cell phone, a first aid kit and boxes of drinks and snacks. Sweeper will use their own vehicle, perhaps a box for the signs, and a means to transport a bike (rack or pick up truck). Registration desk: clipboard with a list of racers, bib # and timing chips Everyone uses hand-held radios to communicate because the routes have connectivity dead spots.
Q5: What is the task frequency? For example, do different people perform this at different rates? At different levels? At different times? **Hint:** You can find more information about task types in Giacumo et al., chapter 5, section "Collect and Analyze Data about Critical Tasks."
A5: Task frequency depends on the race and the total number of racers. Registration/packet pick up is for all racers. Aid stations will be used by those riders who stop at the aid station. Independent of the total number of racers, the sweeper will have a set number of road signs to pick up depending on the route. The sweeper may have zero or multiple racers/bikes to assist with.
Q5: What is the task duration? For example, do different people take different amounts of time to perform the task? At different levels? At different times? How long? **Hint:** You can find more information about task types in Giacumo et al., chapter 5, section "Collect and Analyze Data about Critical Tasks."
A5: Packet pick up/registration 90 minutes. Aid station Volunteer time: 3-4 hours. It takes 15-20 minutes to set up aid station. Time supporting the rider varies by need of the rider (nutrition may take 5 seconds, mechanical may take 10 minutes, medical support may take 20+ minutes).

Insert your answer under each relevant question.
Sweeper: 5-6 hours total. (Mechanical support may take 10 minutes, medical support may take 20+ minutes).
Q5: What are the standards that the completed task should meet? For example, how do people know they've done this correctly? **Hint:** You can find more information about task types in Giacumo et al., chapter 5, section "Collect and Analyze Data about Critical Tasks."
A5: Registration / packet pick up 60-90 minutes prior to start time and completed once race starts. Aid stations are somewhat route dependent and how fast the racers are. Aid station #1 generally set up one hour after race starts, Aid station #2 two hours after. Sweeper to start one hour after start time, and ends when all riders finish and signs are picked up. Customer service would be done correctly if racers report being happy with their experience and recommend others to join IGS events.
Q6: Analyze the procedures, concepts, and/or process – meaning, break down each task into mental/physical steps or components necessary for the completion of that task. You should include: ● A hierarchically organized task list (often numbered) that decomposes tasks into their component subtasks, steps, and corresponding information. ● If/then tables to describe how successful performers make decisions associated with a given step. ● "Hot tips" that provide hints about successful performance. ● "Cautions" about things to avoid or be careful about while completing a given step. You can use this formatting:

Insert your answer under each relevant question.

1. Major task 1
   1.1. First subtask
      1.1.1. First step of the subtask
      1.1.2. Second step of the subtask



      1.1.3. Third step of the subtask (with a sample of a simple decision table)

If Today is	Then
Tuesday	Pay for the hamburger.
Other days of the week	Ask for a hamburger.

   1.2. Second subtask
      1.2.1. First step of the subtask


Caution: Sample caution about the first step

      1.2.2. Second step of the subtask
   1.3. Third subtask
2. Second major task

Caution: Task analyses differ from standard operating performance specifications (SOPs) in that they are created with the intended learners in mind. Unlike SOPs, a Task Analysis contains only the information required to support the desired performance and is thus often briefer.

Hint: You can find more information about this in Giacumo et al., chapter 5, section "Analyze Procedures," and "Task Analysis Variations for Concepts and Processes."

A6:

Aid station:
1.1 Pick up supplies at start/finish line.
1.1.1 Travel to aid station at a certain mile marker. **Prerequisite:** How to drive on country roads.

2.1 Set up tent, table, chairs, snacks, food.

3.1 Watch for riders
3.1.1 Refill water as riders pass and take.
3.1.2 Refill food/snacks as riders pass and take.

Insert your answer under each relevant question.

4. 1Provide mechanical assistance to racers. **Prerequisite**: How to do bike maintenance

5.1. Provide medical assistance to racers. **Prerequisite**: How to identify and provide first aid for dehydration, heat exhaustion and other illnesses

6.1. Tear down station once all racers have passed through/or sweeper passes through.

7.1. Travel to finish line
7.1.1. Deliver supplies back to start/finish line.

Sweepers:
1.1 Drive the route. **Prerequisite**: how to drive on country roads, how to use a Garmin or similar divide to load map, how to read course map

2.1. Pick up signs along the way. (avoid picking up signs on routes that double back)

3.1 Locate racers / bikes on course.
3.1.1. Provide mechanical assistance, as needed. **Prerequisite**: How to do bike maintenance
3.1.2 Pick up racers and bikes, as needed. **Prerequisite**: How to load bike onto pick up truck or attach it to vehicle.
3.1.3 Provide medical support, as needed. **Prerequisite**: How to identify and provide first aid for dehydration, heat exhaustion and other illnesses

4.1. Return signs, bikes, racers to start / finish line.

Q7: Conduct a prerequisite analysis and specify prior knowledge needed for each step/component.

- It means, you do not plan to teach the prerequisite information during your training although you may refer to resources for refreshment purposes.
- Add the prerequisite knowledge information for each step/component.
- For example, using the library search example,
    1. Log into the university library website (prereq: find the library website)
    2. Select relevant databases (prereq: find location of major subject-specific databases)
    3. Search for articles with search terms (prereq: search terms appropriate for the given topic)
    4. Select appropriate articles (prereq: grad-level subject matter concept expertise)

A7: See above.

Lastly:

- Refine your task analysis above.
  Hint: You can find more information about task types in Giacumo et al., chapter 5, section "Step 3. Refine the Task List."

Insert your answer under each relevant question.
● Try out your task analysis with representative learners.

Adapted from Giacumo et al. (2023); Pokimica (2022); Morrison, Ross, and Kemp (2007); Rothwell et al. (2016); Smith and Ragan (2005)

Learning Requirements Analysis (LRA)

Specify initial configurations for each critical task by answering the following questions.

1. Determine whether job aids can support task performance.

Consider Workplace Situations (Adapted from Willmore, 2018)

Task: Setting up aid stations

Work Situations	Could a Job Aid Be Appropriate?	Notes
Consider Work Situations Where a Job Aid Could Be Appropriate. (check one)		Since setting up aid stations is not a complicated task, we are not sure if a job aid is necessary. It's possible that one of the steps is complicated, such as setting up the tent or folding table, but it's not clear. We haven't seen the video yet, so we may need to update this in the future.
Sequence is critical for task success.	□ Yes ☑ No □ Need to gather more information	
A job aid could enhance performer confidence.	☑ Yes □ No □ Need to gather more information	
The consequences of workplace error are high.	□ Yes ☑ No □ Need to gather more information	
The task is performed infrequently.	☑ Yes □ No □ Need to gather more information	
The task is easy to get wrong.	□ Yes ☑ No □ Need to gather more information	
Task performance depends on frequently changing information.	□ Yes ☑ No □ Need to gather more information	
Complex task performance can be described in detail.	☑ Yes □ No □ Need to gather more information	
Task performance requires the use of a large body of information.	□ Yes ☑ No □ Need to gather more information	
Consider Work Situations Where a Job Aid Could Be Inappropriate. (check one)		
Use of a job aid could damage credibility or customer confidence	□ Yes ☑ No □ Need to gather more information	
Use of a job aid would slow or degrade performance.	□ Yes ☑ No □ Need to gather more information	
The workplace environment doesn't lend itself to a job aid.	□ Yes ☑ No □ Need to gather more information	
Performer memory is a better option.	□ Yes ☑ No □ Need to gather more information	

Task: Identifying and helping riders who need medical assistance

Work Situations	Could a Job Aid Be Appropriate?	Notes
Consider Work Situations Where a Job Aid Could Be Appropriate. (check one)		If the volunteer is not familiar with first aid, this task can be quite complex and a job aid would be very helpful.
Sequence is critical for task success.	☑ Yes □ No □ Need to gather more information	
A job aid could enhance performer confidence.	☑ Yes □ No □ Need to gather more information	
The consequences of workplace error are high.	☑ Yes □ No □ Need to gather more information	
The task is performed infrequently.	☑ Yes □ No □ Need to gather more information	
The task is easy to get wrong.	□ Yes ☑ No □ Need to gather more information	
Task performance depends on frequently changing information.	□ Yes ☑ No □ Need to gather more information	
Complex task performance can be described in detail.	☑ Yes □ No □ Need to gather more information	
Task performance requires the use of a large body of information.	? Yes □ No □ Need to gather more information	
Consider Work Situations Where a Job Aid Could Be Inappropriate. (check one)		
Use of a job aid could damage credibility or customer confidence	□ Yes ☑ No □ Need to gather more information	
Use of a job aid would slow or degrade performance.	□ Yes ☑ No □ Need to gather more information	
The workplace environment doesn't lend itself to a job aid.	□ Yes ☑ No □ Need to gather more information	
Performer memory is a better option.	□ Yes ☑ No □ Need to gather more information	

2. Specify an appropriate training configuration

Select one appropriate training configuration below to support the task.

What training configuration is appropriate to support the task? (check one)	Rationale for each configuration
▢ Informal learning	The task is not a priority for the organization.
▢ Standalone job aids (no training)	The task is a priority, job aids are appropriate, and the task involves a simple skill.
☑ Introductory training with job aids	The task is a priority, job aids are appropriate, and the task involves either a ● Relatively straightforward skill that requires demonstration. ● Simple skill where learners won't use the job aid on their own without a formal introduction and demonstration.
▢ Extensive training with job aids	The task is a priority, job aids are appropriate, and the task involves a complex or difficult skill that requires demonstration, practice, coaching, and feedback.
▢ Extensive training to memory	The task is a priority, job aids are not appropriate, and the task involves a complex or difficult skill that requires demonstration, practice, coaching, and feedback.

Note: setting up aid stations could be a very straight-forward training, but identifying illness would be more complex.

3. Describe the program components to be designed.

Insert your answer under each relevant question.
Q1: Based on what you found out from the above questions, clearly describe the training program to be designed (including a job aid solution if applicable).

Insert your answer under each relevant question.
A1: If the client allows, we would create a 45-minute instructor-led training and 1-2 job aids (one for setting up the aid station and one for identifying illness and action steps). The training could be done in-person on race day or online via a videoconferencing application such as zoom. The training would include: ● General information about the race, such as the schedule and volunteer roles. ● Locations of aid stations. ● A demonstration of how to set up an aid station ● Customer service scenarios and best practices ● Identifying illness scenarios and best practices
Q2: Combining the information obtained from the Training Requirements Analysis, Learner and Environmental Analysis, and Task Analysis, determine an appropriate training delivery mode: ● **Instructor-led training in a face-to-face classroom** ● **Instructor-led training in a virtual classroom** ● Self-paced training using print-based workbooks ● **Self-paced e-learning** ● Structured on-the-job training Other (describe)
A2: We are still unsure which delivery method is going to be approved by the client.

Adapted from Giacumo et al. (2023), Pokimica (2022), Rothwell et al. (2016, p. 31), and Smith & Ragan (2005, pp. 43-48).