



# EDUCATING & RAISING AWARENESS ON THE 17 GOALS OF SUSTAINABLE DEVELOPMENT

Design Document

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## Design Document Overview



### Educate and raise awareness of the 17 Sustainable Development Goals

In 2015, all 193 United Nations Member States formally accepted a new set of 17 Sustainable Development Goals (SDGs). The SDGs are a universal call to action to end poverty, protect the planet, and ensure that all people enjoy space and prosperity (Global Goals, 2015). Also known as the global goals, they cover a broad range of issues that will guide policy and funding for the next 15 years to meet the urgent environmental, political and economic challenges facing our world. Despite their influence and importance, most of the general public are unaware the 17 SDGs exist or what they aim to achieve. This document provides analysis, design, development, implementation, and evaluation strategies to the United Nations Development Programme (UNDP) to meet the goals of educating and raising awareness of these 17 SDGs. It also provides solutions to teachers and learners on how to get more involved with these important goals.

## Instructional Design Model



### The ADDIE design model

We have chosen to use the ADDIE model of instructional design. This model uses a behavioural approach to the design that we think links very closely with the behavioural changes we want our learners to make. This model includes, analysis, design, development, implementation and evaluation (Kahlil & Elkhider, 2016). This document is set up in this format for flow and context.

ANALYZE | DESIGN | DEVELOP | IMPLEMENT | EVALUATE



# ANALYZE

## Summary of Analysis

### What We Found

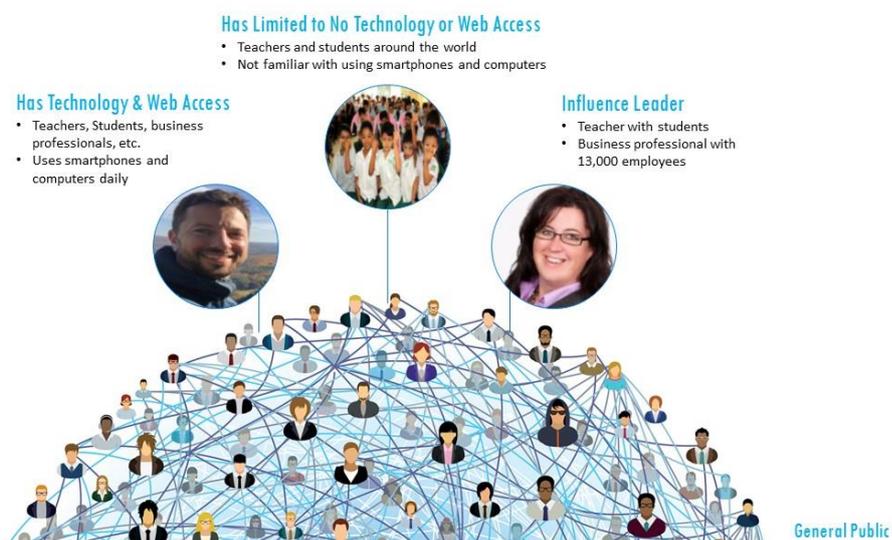
During our initial analysis, we found that there is existing content that we can incorporate into our solutions. This will keep the verbiage and look and feel consistent with materials the UNDP is already using. This content includes: icons, images, text, a short video, and a smartphone app. There are infographics in circulation, but none individually tell the whole story, so we will be incorporating these into our solution as well.

### Our Learners

The general public is our learner pool. With such a large pool of learners, we need to be aware that not everyone in the public has access to internet, mobile devices or computers. There is also the learner that has influence and/or authority power over a large group of the general public either through a public office, or an organization position. This learner has the ability to share the content with their constituents or employees so that the content is delivered to more of the public. We have decided to focus on two types of learners. The first being those who have access to technology and second, those who do not. With these two learners in mind the solutions that we will create will be useful for the general public and by the influence leaders. See appendix for example Learner Persona Profiles.

### Figure 1 – Our Learners

The learning audience is the general public with the learning solution focusing on individuals and working professionals with and without access to the internet.



# DESIGN

## Instructional Objectives

There are 4 main learning objectives in this program. They are all predicated on the condition that the learner will complete each solution with satisfactory scores.

**Upon completion of the learning solutions the learners can:**

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**State the 17 Sustainable Development Goals**

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**Explain the 17 Sustainable Development Goals in their own words**

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**Determine where they can volunteer to help meet one or more of the 17 Sustainable Development Goals**

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**Communicate awareness of the 17 Sustainable Development Goals**

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## Proposed Learning Solutions



The learning solution includes 2 components to create a complete program and reach all of the learners – a photo memory game, and a visual infographic. Since not all learners will have access to the internet and smartphones, beyond the game being developed to work within the UN’s existing app for the 17 SDGs, SDGs in Action, it will also exist as a tangible card game for fun offline. Likewise, the infographic will be made for online distribution via the UN’s dedicated social media and online publication outlets as well as a printed poster for classrooms and businesses.

The memory game will use a fun, interactive medium to encourage multiple completions of the content. This will increase their knowledge of the 17 SDG’s. The online game will give visible feedback in the form of Leader Boards and stack ranking. This will cater to the learners need for motivation (Dirksen, 2016, p. 227). The memory game should take around 10-15 minutes to complete, based on learner experience.

Similarly, the infographic will encourage conversation with others and serve as reminder to the general public on the 17 SDGs.

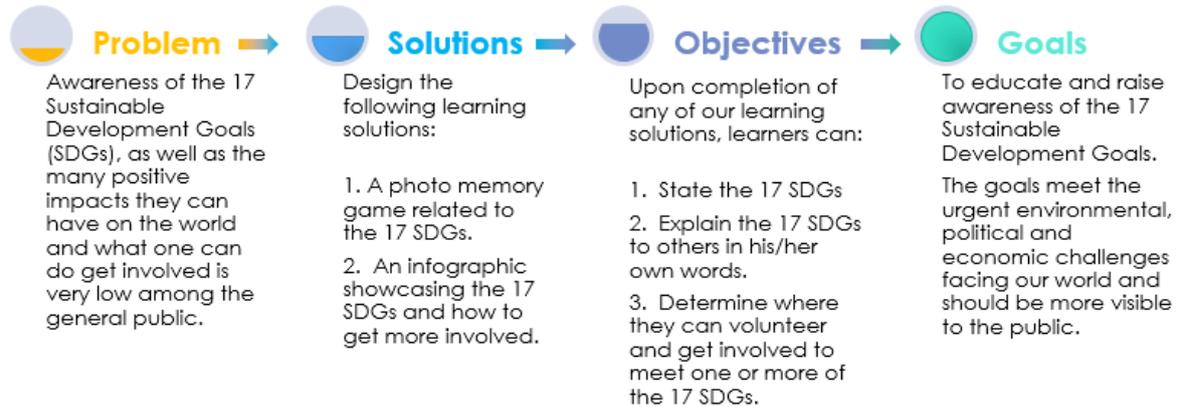
Additionally, information on how to get involved with any of the 17 SDGs and where to find available resources to take action will be presented to learners. For the app-based game this will display with the learner’s score. For the tangible card game, it will be an additional card in the deck, and it will be included as text on the infographic – hyperlinked in the digital version.



Figure 2 –Learning Roadmaps

Use the chart graphic below to see the breakdown for the proposed learning solution

## Learning Roadmap



# DEVELOP

## Solution Mock Ups

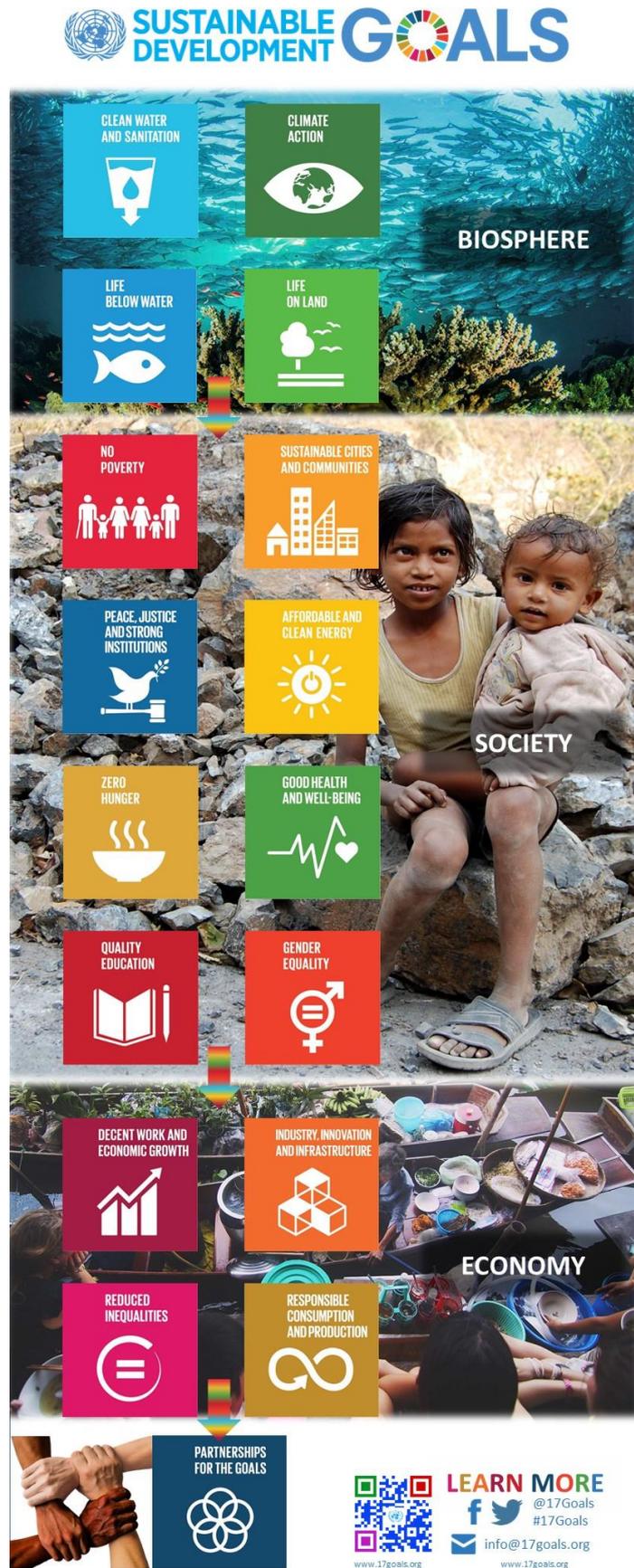
The objective of the infographic and card game designs were to create visuals that could be teaching aids in multiple environments and would be effective with or without the aid of the internet. The infographic, for example, could easily be printed as a poster for physical display in a classroom or workplace, but also as an image shared online. The poster includes the hashtag #17Goals, but as a digital image this is a hyperlink directly to the online conversation on Twitter. Likewise, in the card game the reverse side of each card has call to action items and abilities to check out more on each individual goal. Within the app, these are hyperlinks, but as a physical card game it provides the link. Finally, all copy is verbatim from UNDP-approved materials.



Figure 3—Infographic

All 17 Sustainable Development Goals (SDGs) are represented and categorized by one of 3 SDG categories (Salas, 2006), which when all combined work to accomplish the final goal: **Partnerships for the goals.**

All iconography and color schemes are from UNDP-available assets. The image is made as a banner to not only convey all necessary material, but also to conform to industry-relevant graphics that are shared online in such platforms as Pinterest. The bottom of the poster has call to action items on how to join the conversation or get involved, which direct the learner to additional UNDP-approved programs and materials related to the SDGs.





**Figure 4 –Photo  
Memory Card Game**

The mobile-friendly version of the photo memory card game can be implemented into the existing SDGs in Action iPhone and Android app developed by the UNDP. Cards are randomly presented with a countdown timer to guess the goal by its icon. Results are shown after each card to show learner's progress as well as more information on each individual SDG. Players can share their scores and encourage others to play when finished, as well as check out their score on a Leader Board. The printed card game works similarly, with additional cards for call to action items and suggested gameplay.



## Assumptions



During design and development of the learning solutions, we had to make the following assumptions about our learners and the UNDP.

### Learner Assumptions

Already familiar with how a memory card game works

Previous knowledge of how to share game scores or infographics based on technology experience

Gameplay is engaging enough to pursue more information on topics if presented with the opportunity

### Client Assumptions

Would rather launch the photo memory game within their existing app framework

Prefer to use existing imagery, copy, and marketing campaigns related to the 17 SDGs rather than developing new messaging

Have existing infrastructure to deploy physical and digitally produced assets, including financial capital to fund project development



# IMPLEMENTATION

Schedule 

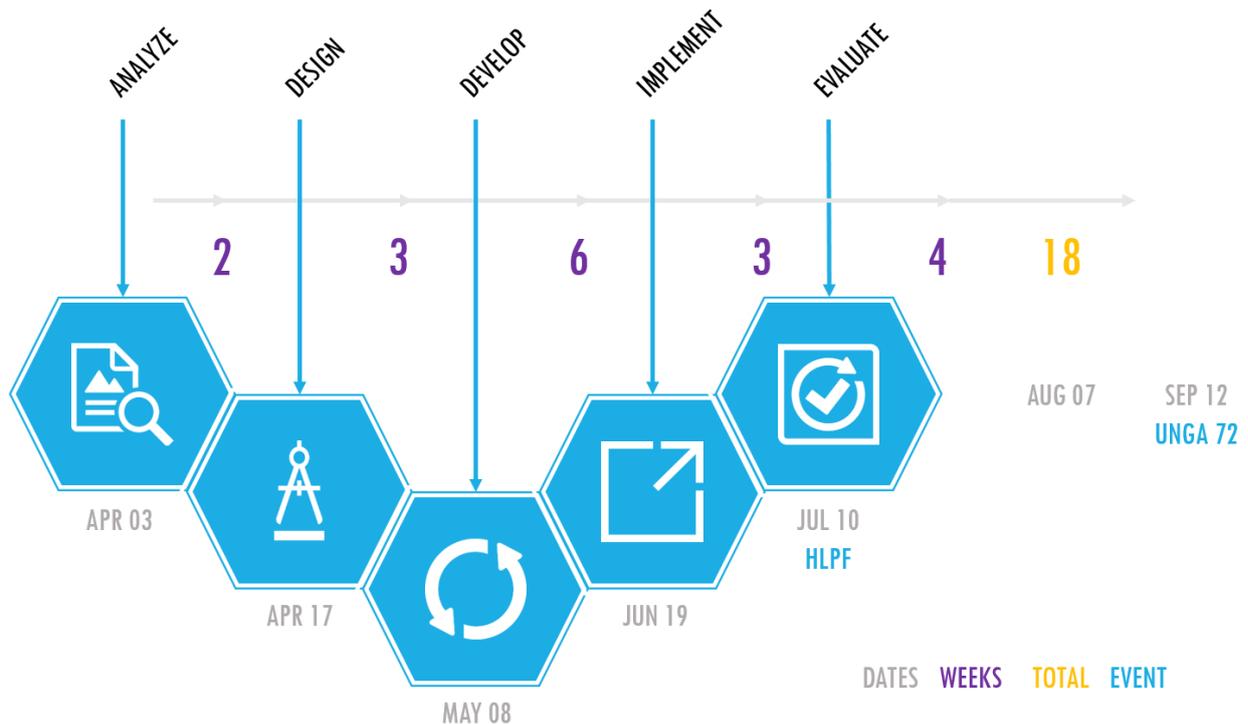


Figure 5 –Schedule

Use the chart graphic above for a quick look at the project's intended schedule.

## Timetable

The Analysis phase will take two weeks. We will meet with subject matter experts to address their objectives and propose the proper learning solutions, establishing a timeline for the project and agreeing on a communication plan. This time is also necessary for gathering background information and inheriting existing assets to utilize in the final learning solution. Assuming the UNDP desires to use their existing artwork and messaging surrounding the SDGs, the Design phase will require 3 weeks. Half this time will be spent developing a few tangible card game designs and infographic concepts, while the other half will be needed for mock ups for the app-based game destined for two mobile OS platforms (Apple iOS and Android).



The Development phase will be the longest. While finalizing digital and print versions of the infographic are straightforward and easy to predict (2 weeks), app development is the opposite. To combat any unforeseen technology road blocks, the UNDP understands additional talent or collaboration with their qualified employees may be necessary. The 6 weeks given to this stage is generous, considering most heavy lifting on development has been done with the existing SDGs in Action app.

The implementation phase will be 3 weeks. Opposite to the Development phase, the physical print will take the majority of this time, while the digital deployment of the app and the infographic to social media and online marketing efforts can be instantaneous, allowing for a coordinated and deliberate release.

4 weeks will initially be given to evaluate the learning solution, with the easy option of extending this period depending on the desired data. While feedback and surveys can be used in workplaces and classrooms for the effectiveness of the physical card game and posters, running analytics on the app or digital infographic can be done whenever desired, understanding data should be collected for at least 4 weeks for high statistical validity.

### **Important Dates**

The project revolves around two key gatherings for the UN in the 2017 calendar year. From July 10-19 the High-level Political Forum on Sustainable Development (HLPF) takes place and September 12 marks the beginning of the 72<sup>nd</sup> Session on the UN General Assembly (UNGA 72). If we begin on April 3<sup>rd</sup> and follow the timeline, the analysis, design, and development phases will conclude on June 19<sup>th</sup> and implementation can commence. Considering the HLPF takes place an exact three weeks later on July 10<sup>th</sup> means by the time meetings begin, the implementation phase will have just concluded, allowing data and logistics on the learning solution to be discussed. Digital versions of the infographic and card game release are instantaneous, so although data related to the physical distribution would be in its infancy, conclusions and lessons could begin to be drawn from digital distributions. By August 7<sup>th</sup> our evaluation phase will conclude, allowing UN members to discuss the project's efficacy, draw conclusions, and discuss improvements ahead of an during the UNGA 72 event.





To remain on schedule, we will establish a few methods of communication internally as a team and externally with the UNDP. Our team will meet twice per week to discuss our progress and share input. Individual resources will be managed by a project manager, holding weekly meetings with individual subject matter experts. We will engage in a weekly conference call with the UNDP on Mondays to discuss the project timeline. On Fridays, an email will be sent summarizing our progress for the week, our intended next steps, and suggestions for topics for the next week's conference call. During the Development phase, communication will tighten to a daily occurrence, with app game testing and revisions becoming very collaborative. Considering the intended resources are highly visual, communication tools which allow screen sharing and web conferencing will be utilized.

# EVALUATION

## Evaluation Plan

With all learning solutions, it is important to evaluate the skills transfer of the solution. Did the learners learn? This helps organizations know without a doubt that learning has happened and behavior will/has changed as a result. The best way to determine the success of a learning solution is to start preparing for the evaluation from the very beginning. Evaluation should be directly tied to the learning objectives (Dirksen pg. 282). Tying the results to the learning objectives will ensure that you are evaluating the correct behaviors.

With a project as large and encompassing as this one, with objectives that reach globally, it was critical the evaluation framework was built into the learning solution itself. With the mobile app game, there are leader boards and sharing opportunities that allow not only the learner to know exactly where they stand, but will allow us to pull data to see how many people are playing the game, how often they are playing, where in the world are they playing, how many people are sharing the game and resources, and how deep they click into the information. With the tangible game that is played in the classroom, teachers will be able to track results in real time and post them online to the mobile app. This information will indicate if learners are meeting the learning objectives of being able to state and explain the 17 SDGs, and increase the awareness of the 17 SDGs to a global perspective.



The proposed evaluation plan will address all four levels of Kirkpatrick's model for evaluation. Dr. Don Kirkpatrick created a model of evaluation that is the standard for evaluating the effectiveness of training. There are 4 levels of evaluation ([kirkpatrickpartners.com/ourphilosophy](http://kirkpatrickpartners.com/ourphilosophy)).



### Communicating Results and Allowing for Revisions

There are key dates to adhere to when it comes to communicating results of the evaluation plan. Those dates revolve around fixed events for the United Nations and are also when revisions to how results are being collected will be discussed. Those events are the July 10-19 HLPF on Sustainable Development and the 72<sup>nd</sup> Session on the UNGA. By implementing the learning solutions on June 19, the infographic and digital photo memory card games' results can be discussed at the HLPF, since data collection begins simultaneously with those solutions' deployments and HLPF takes place 3 weeks later – plenty of time for collected results to be statistically significant. The same will not be true of the data related to the poster and physical card game. Revisions on data collected on the infographic and card game can be discussed at HLPF, but the results and conclusions of all learning solutions will require the time up until August 7<sup>th</sup>, 5 weeks before the UNGA. At that time on September 12<sup>th</sup>, revisions to all evaluation solutions can be discussed and a new round of evaluations can follow, if necessary.



## Action Plan and Schedule



The below graphic outlines the proper learning level being evaluated and how each will be measured throughout the evaluation plan for all learning solutions. There are multiple evaluation tools that will be used to determine if the learning solution is successful. The timeline shows when we will gather and analyse the data as well as when we will report that data up to the organization. There is time built into the design document to allow for changes to be made as necessary. View appendix for expanded version which shows the learning objectives and how the learning solutions meet those objectives as a reminder when addressing the evaluation plan.

Applying Kirkpatrick's Levels	Infographic	Poster	Card Game – Physical	Card Game - Digital		
<b>Level 1 - Reaction</b> They have a positive reaction to the 17 SDGs learning content	Spend significant time interacting with the content/return multiple times to content.	Spend significant time interacting with the content/return multiple times to content.	Game is played on multiple occasions	Spend significant time interacting with the content/return multiple times to content.		
<b>Evaluation Method</b>	Time spent (Totals; averages) on site viewing infographic.	Poster is and remains displayed in institutions. Amount of orders placed for poster.	There are multiple requests to play the game	There are multiple attempts at playing the game		
<b>Level 2 - Learning</b> They are able to state and explain the 17 SDGs	Able to recall goals by icon recognition. When asked, can elaborate on goals viewed during clicking/hovering over icons.	Able to recall goals by icon recognition. When asked, can elaborate on goals viewed during visitation to URL listed on poster.	Learners' game scores for matching icons to goals are of passing standard. Learners able to explain a goal when asked.	Learners' game scores for matching icons to goals are of passing standard. Learners able to explain a goal when asked.		
<b>Evaluation Method</b>	Mouse clicks and hovers on each goal for each participant.	Visits to site via the learning solution specifically designed QR code and website URL.	Game Administrator (or individual) play card game with group or individually until passing rate exceeds 75%.	Individual learners' highest score average exceeds 75%.		
<b>Level 3 - Behavior</b> They are spreading awareness of the 17 SDGs	Sharing and reposting infographic to social media and around web. Conversing on social media.	Discussing poster in classrooms and institutions. Copies of poster are printed and displayed.	Discussing game scores and goals in classrooms and institutions.	Learners share scores and information - regardless of content - to social media and around web.		
<b>Evaluation Method</b>	Activity on social media related to SDG hashtags. Measure times infographic shared around web.	Amount of copies of online available printer-ready posters are printed. Amount of orders for available posters.	Amount of copies of online available printer-ready card games are printer. Amount of order for available card games.	Amount of share button actions completed by users of the app. Tabulate results and analyze trends. Leader boards.		
<b>Level 4 - Results</b> Volunteerism, Donations, and orders for materials are increasing.	Viewers of material are engaging on social media and visiting URL showing how to volunteer and get more involved.	Classrooms, businesses, and groups signing up for volunteer opportunities or raising money related to SDGs.	Classrooms, businesses, and groups signing up for volunteer opportunities or raising money related to SDGs.	Learners are using the URLs and ACT buttons embedded within game screens		
<b>Evaluation Method</b>	Mouse clicks and hovers on URL designed to showcase volunteer opportunities.	Track sign up for volunteer opportunities or tabulate total requests for more information from institutions.	Track sign up for volunteer opportunities or tabulate total requests for more information from institutions.	Amount of ACT button actions completed by users of the app. Tabulate results and analyze trends.		
<b>Timeline</b>						
<b>Results Collected</b>	Jun 19 – Jul 10	Jul 11 – Aug 07	Jun 19 – Aug 07	Jun 19 – Aug 07	Jun 19 – Jul 10	Jul 11 – Aug 07
<b>Results Discussed</b>	HLPF; Jul 10	UNGA 72; Aug 07	UNGA 72; Aug 07	UNGA 72; Aug 07	HLPF; Jul 10	UNGA 72; Aug 07



## Project Summary



A photo memory card game and infographic are proposed as learning solutions to the United Nations in an effort to educate and raise awareness on the 17 SDGs. The SDGs tackle issues relatable to everyone, and as such the card game and infographic will be developed for both physical and digital settings to maximize the intended audience, regardless of their access to the internet. Existing resources such as iconography and social media campaigns, and websites with tools on how to get more involved will be incorporated into the infographic and card games to maintain consistency with the United Nation Development Programme's other ongoing learning initiatives involving sustainable living.

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## Appendix



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# JIM HALE



## LIFE COACH & Massage Therapist – Self-Employed

### DISCOVERY:

Jim is a self-employed life coach living in Boulder, CO. He has a diverse formal education background history starting with a degree in Outdoor Education. He spent time in an ashram in Australia to become a yogi, has been a licensed massage therapist for the past four years, and as of 2015 has been a full time life coach. Jim is from Boston and moved to Boulder, CO in 2011. He is very active within his community, participating in political, social, and philanthropic efforts. Jim is thirty-five.

Jim is an active member at The Integral Center, a “community-as-practice” organization that hosts seminars and workshops in efforts of creating stronger relationships and discovering more on life, body, and mind. He routinely hosts yoga classes and offers massages to other members, as well as leading and participating in seminars weekly.

In early 2015, Jim was experiencing soreness with his shoulder, an issue for a massage therapist that prompted him to look into other avenues for income, besides just massage work. Enjoying his experience with mental health through yoga, as well as his connection to people and his deep rooted ties to his community, Jim explored a career in life coaching which started with a workshop.

Jim was expecting to gain a lot from his experience, for his hands-on involvement with seminars at The Integral Center always left him with knowledge gained or taught. However, the life coaching workshop weekend began with everyone needing to have read the leader’s book before attending, followed by a lot of lecture-style, hour long sessions from the instructor, an experienced life coach. Jim soon found his attention wandering, which was disappointing considering his motivation to learn was so high. Evidently the book he read was more useful, mostly for the visual aids and the book’s included CD-ROM with printable charts.

Since his first workshop, Jim has sought out life coaching trainings that involve a lot more role playing scenarios to help him learn how to handle his clients in tough situations. It’s his biggest need for development. Learning the material has never been an issue for Jim as long as it’s in a visual and hands-on style. What he learns he brings back to The Integral Center to share with his colleagues.



## IMMERSION:

Jim is constantly on the move. Being self-employed, Jim must cater to his clients - which he has many. The Integral Center is Jim's hub, where he sees most of his clients during a yoga class he runs once a day, but he also must drive across town where he has an office for his massage therapy private practice. In between, he's either meeting clients in person or talking to them on the phone via voice or video chat for his 1-on-1 life coaching. With the little down time Jim has, because he's mobile, he uses his phone to keep in touch with his friends and family via social media and also likes to keep up to date on current events by reading the news. What he finds interesting online he usually posts to his social media to raise awareness and invite healthy progressive dialogue. Overall, this adds up to Jim spending a lot of time on his phone.

Jim considers himself more of a leader than a follower among his peers, and enjoys being involved with a few community organizations promoting health and wellbeing. Not only does he feel he is contributing for good, he feels it is his responsibility. It is entirely within reason that a given evening or weekend could see him running a workshop or volunteering to participate with a friend running a seminar. His background in so many disciplines of health, both physical and mental, and valued and respected by his peers.

## CONNECTION:

Jim is a champion of ideas, but a hard guy to keep focused on a specific goal. By being involved with so many social causes, as well as juggling three professions for his income, it's clear why it's hard to keep Jim's attention on any given subject for too long. This doesn't seem to bother Jim - he likes being on the go and spending his day in a lot of different environments. After all, it keeps his mind busy and fresh, which helps him succeed. However, it frustrates his friends because his schedule is very inconsistent which makes finding time to connect with Jim difficult. They love hanging out with him and wish it was more often, but they understand he has a busy life and enjoy what interaction they can get from him, even if that means more as a dialogue on his Facebook page.

As an influencer among his friends, Jim takes great pride in bringing awareness of a topic to his social circles. His mission is more to empower his friends for change rather than execute on the plan. While his enthusiasm is contagious, it also must be contained as he sees spreading the word a more important step to change than the path it requires. This is true in his life coaching practice, where he has no issue motivating his clients but struggles to provide the steps to help them achieve their goals.

Jim knows a lot about the environment and understands the importance of sustainable living, but had never heard of the 17 Sustainable Goals specifically.



## DETACHMENT:

Jim is highly intrinsically motivated, and any subject related to his interests will all but guarantee he participates. However, his attention is hard to keep focused for long and if the subject matter isn't hands-on or interactive, Jim will almost assuredly lose interest quickly. Any learning materials that allow for him to engage with the content rather than learning passively will result in the best retention. Aside from keeping his attention, Jim is also easily excitable, so using infographics, colors, and sounds will grab his attention. Jim also considers himself an influencer and leader among his friends, and if he likes what he's learning he will spread the knowledge and raise awareness, if given the opportunity.

A game-based learning solution to teach Jim about the world's 17 Goals of Sustainability would work well. The idea of a memory-based card game is great since it would invite interactive participation. With the inclusion of colors and sounds, and using an infographic to represent a given sustainability goal, a game would have the necessary components to attract Jim's attention and keep it during the learning. By including the ability to compete against his friends, or share his score with others, Jim would also be spreading the awareness of the game to his friends and others in his community. Although the game has to be factual, if it also isn't fun there's no chance Jim would risk his reputation as an influencer to share out anything on a subject, for him the stakes are too high.

The consequences to this type of learning solution is it won't allow for much intense discussion on sustainability, because the information is not meant to be very in-depth. This could be awkward for Jim since he prides himself on being able to speak on a lot of issues with intellect. Jim regards sustainability as a serious issue, and although he would agree the information in the game is useful, he may not experience as much gratification from being an influencer as games also are not usually taken as a medium to convey serious information so adoption among his peers may be more difficult than if it was presented as an article from a reputable online journal, for example.



# CHRISTINA HEINZMANN



## Christina Heinzmann — Human Resource Director — Large Financial Institution

### DISCOVERY:

Christina is the Director of Human Resources for a large financial institution in the Western United States. She is 42 years old and is married with a 10-year-old son. She has dual citizenship with Canada and the US and has been in the US for the last 30 years. Christina has a Bachelor's degree in Business Administration and a Master's degree in Human Resource Management. She has been in the HR industry, specifically for financial institutions her entire career, having started in her first role at the age of 20.

Christina has her Society for Human Resource Management (SHRM) certifications and takes online continuing education requirements for her certification on an annual basis. Outside of the 1 or 2 classes a year to maintain her certification, she hasn't been in a true class setting either online or in person in many years. She is not a reader or a voracious learner. She finds value in learning, just not for herself.

She tends to get bored sitting all day so she is not the best student. She constantly gets on her phone or if able her computer to check in with the rest of her world while in a class. She needs to be constantly challenged in a class setting and quickly moved through the processes so she can stay engaged. She will start side conversations and distract others if not fully engaged. This is the main reason she doesn't attend classes.

Christina works best with quick, online messaging that she can return to over and over again if necessary. She wants the highlights, not the details and works well with just talking things out with another person. She is very visual and usually talks in matrices or graphs, constantly drawing what she is talking about. She likes Pinterest and video learning as well, as she can copy what is being created very easily.

### IMMERSION:

Christina's role in the company is a large one. She is responsible for 13,000 employees with the help of her 10 HR Business Partners. She sits on many committees including, Executive Management Committee, Process Improvement Committee, Affiliate Loan Committee, Employee Engagement and Community Involvement. She has direct access to all of the key decision makers for the organization and is a role manager of others, as well as an influence manager of her peers. She helps direct what programs get visibility and which programs don't. Christina will be able to help our program get the spotlight and attention it needs in order to be successful.



Christina believes in the idea of the 17 Sustainable Goals and sees the value they will bring not only to the organization, but the individual employees and their families.

### CONNECTION:

Christina's largest obstacle to success is time. She is pulled in many different directions. While she takes many notes throughout her day, sometimes her notes are so prolific that she loses notes she made earlier in the day or the week. This is true even if she truly believes in and is engaged in the topic or task. This makes others around her frustrated when they have to talk to her more than once. She also has many great ideas to help your project or program move forward but when she loses her notes she can't remember what that great idea was to help you. Christina needs most of the work to be completed on a project or program and then she is really good at highlighting it to others in the appropriate venues.

Christina spends a lot of her day in meetings. So she has very little execution time. Her skills are best used in being the strategy behind a project. She has enormous influence management (relationship power) with her peers and others. While she has the authority to create a program or advocate a program, most often she uses her influence power to get things moving. She can put her foot down and dictate direction, but that is not her style. She has the innate ability to get others excited and engaged in a project. This creates a grass roots movement that allows programs to grow and prosper quickly.

Christina does not currently know what the details of the 17 Sustainable Goals and she does not know where they would fit into her world, until she can learn more.

### DETACHMENT:

Christina will do best with quick, easy online modules, games or job aids. She needs lots of colors and graphics. She will want information in bullet points, high level and prioritized. She will need gratification in the form of knowledge checks or points given or encouragement along the way. Videos are good as she can see and hear what needs to be learned. Christina will do well with an online game with an infographic of the 17 Sustainable Goals. If she finds it easy and fun, then she is more likely to be an advocate for the program.

The downside to this type of learning is that Christina won't have any details of the program and will have to rely on others to know more than she does. She will require further information if it becomes necessary for her to advocate the program within her organization. If the game is not done well, she could find the game too immature or too competitive, and thus she will be less likely to advocate the program. Production value is important and needs to be the focal point of the design. She wants to ensure that what she is championing will be received well. The upside to this type of learning is that if it is fun and engaging it will be a unique opportunity for Christina to present serious material in a fun way to her employees and peers.



## B – Storyboard

# STORY BOARD; MOBLIE APP

The storyboard visually shows how the Learning Objectives will be met using the solutions outlined in the design document. This storyboard is for one of the learning solutions mentioned, the mobile application for the online game. The other two learning solutions will look very similar, using the same text and images.

### Storyboard Overview

The learning solution of the mobile game is targeted to the general public. That means that it will cater to anyone regardless of age, gender, religion, nationality, or race. The design of the game's copy takes into account that this game will be globally deployed and therefore require multiple language versions by using words easily translatable. It will be quick, fun, and engaging using interactions that will encourage repetition. The game will require internet service to download to a tablet, phone or computer. The learner will also be required to be connected to the internet to see such features as leader boards and tracking progress of the Sustainable Development Goals (SDGs), but once downloaded the game is playable offline for critical features likes learning about the SDGs.

<b>Title of Learning Solution</b>	Photo Memory game related to the 17 SDG's Mobile Application
<b>Target Audience</b>	General public
<b>Description of Learning Solution</b>	Online game with scoring, leader boards and information on SDG progress and opportunities to get involved.
<b>Materials Required</b>	Smart phone, tablet, or computer and internet service
<b>Duration of Entire Learning Solution</b>	30-45 minutes for each completion depending on learner and attempt rehearsing material.



## Alignment

The mobile game will meet the learning objectives stated and agreed upon in the design document (listed below). While some of the game's components cover one specific learning objective, others meet each of the objectives simultaneously. Learners will be able to talk about the 17 SDGs in their language and explain where others can volunteer to help the goals be met. They can spread awareness of the SDGs by sharing their scores and competing online with friends and family, and all others who have downloaded and are participating in the memory photo game.

<b>Learning Objective(s)</b>	By the end of the online game, participants will be able to: <ul style="list-style-type: none"> <li>• State the 17 SDG's from memory</li> <li>• Explain the 17 SDG's in own words</li> <li>• Learn how/where to volunteer</li> <li>• Communicate awareness of the 17 SDGs</li> </ul>
<b>Instructional Approach</b>	Photo memory game on tablet and smartphone via the existing "SDGs in Action" mobile app, as well as on a webpage found within the UNDP web framework that engages your memory to explain the 17 SDGs and learn about volunteer opportunities.
<b>Practice Opportunity</b>	Participants will play the online game on their smart phone, tablet or computer.
<b>Assessment Item</b>	Leader boards and competitions will be included in the game to track completion times and scores. Tracking of clicks on link to volunteerism enrollment.



## Storyboard

The following storyboard consists of screens. Each screen has the following components:

1. **Screen #** - each module is listed numerically
2. **Screen Title** – the name of the screen
3. **Objective** – this is the learning objective addressed in this module, there are 3 objectives total
4. **Text/Graphics** – these are the actual words on the screen/cards and the images that will correspond
5. **Notes to Developer** – anything the developer will need to know to create the screen

<b>Screen #</b>	1	<b>Screen Title</b>	Welcome Screen
<b>Objective</b>	State the 17 SDG's from memory Communicate awareness of the 17 SDG's		
<b>Text/Graphics</b>			
<p>Menu Navigation from every screen</p> <p>Share button is present on every screen to allow learners to spread awareness on the SDGs. Game scores, volunteer opportunities, and background information on each goal are some examples. Share button works like other smartphone apps with this feature, allowing posting to social media accounts and other messaging avenues.</p> <p>Game directions</p> <p>Returning Learners can skip right to game play, while first time learners review the goals</p>			
<b>Notes to Developer</b>		The learner has the choice to review goals, which leads to reviewing an interactive infographic. With this choice, returning learners can skip to the game to test their knowledge and challenge their friends. Share button to be available on every screen in the app and game.	



<b>Screen #</b>	2	<b>Screen Title</b>	Review – Infographic
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<b>Objective</b>	<p>State the 17 SDG's from memory</p> <p>Explain the 17 SDG's in own words</p> <p>Communicate awareness of the 17 SDG's</p>
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**Text/Graphics**



Learners scroll through an infographic picking any of the 17 SDGs they want for an interactive learning experience.

Selecting any icon tile reveals more about each Sustainable Development Goal, including how to track each goal's progress and get more involved with the initiatives.



<b>Notes to Developer</b>	<p>Images and icons are officially approved resources from the UNDP. They can be downloaded from their website's media department for use in development of this game. This infographic is also used in other parts of the overall learning solution for the UNDP, including as a physical poster for classrooms and businesses.</p>
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<b>Screen #</b>	3/4/5	<b>Screen Title</b>	Review - Infographic – SDG 02/03/15 explained
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<b>Objective</b>	<p>State the 17 SDG’s from memory</p> <p>Explain the 17 SDG’s in own words</p> <p>Learn how/where to volunteer</p> <p>Communicate awareness of the 17 SDG’s</p>
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**Text/Graphics**

When clicked, each goal has an accompanying lifestyle image and text to help teach the goal and elaborate on its importance

Each goal has click through links to get involved and track progress.

Throughout the existing SDGs in Action app, there is an “ACT” button which auto-populates whenever there is an opportunity to get more involved with a cause or goal. Additionally each goal has click through links to get involved and track progress of each goal.

<b>Notes to Developer</b>	The “Get Involved” and “Review SDGx targets and progress” clickthrough links should be developed to allow tracking.
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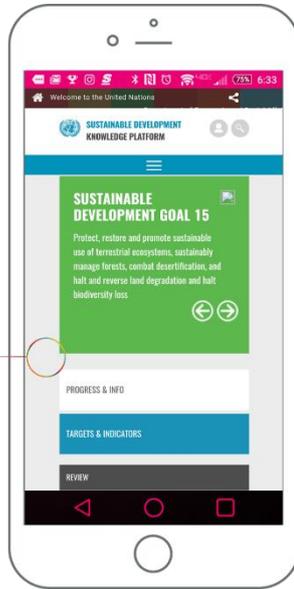


<b>Screen #</b>	6	<b>Screen Title</b>	Review – How to Check Progress on a Given Goal
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<b>Objective</b>	Learn how/where to volunteer Communicate awareness of the 17 SDG's		
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**Text/Graphics**

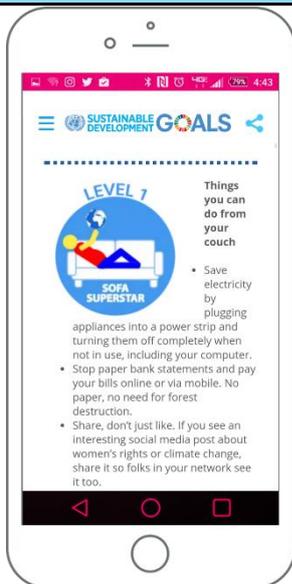
Each goal has a space on the UNDP website dedicated to reviewing and tracking progress as well as learning more about targets and indicators



<b>Screen #</b>	7	<b>Screen Title</b>	Review – How to Volunteer on a Given Goal
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<b>Objective</b>	Learn how/where to volunteer Communicate awareness of the 17 SDG's		
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**Text/Graphics**



By selecting "Get Involved" each learner will be taken to the UNDP website to read "The Lazy Person's Guide to Saving the World"

<b>Notes to Developer</b>	Retrieve each SDG progress and volunteer URL from <a href="https://sustainabledevelopment.un.org">https://sustainabledevelopment.un.org</a>		
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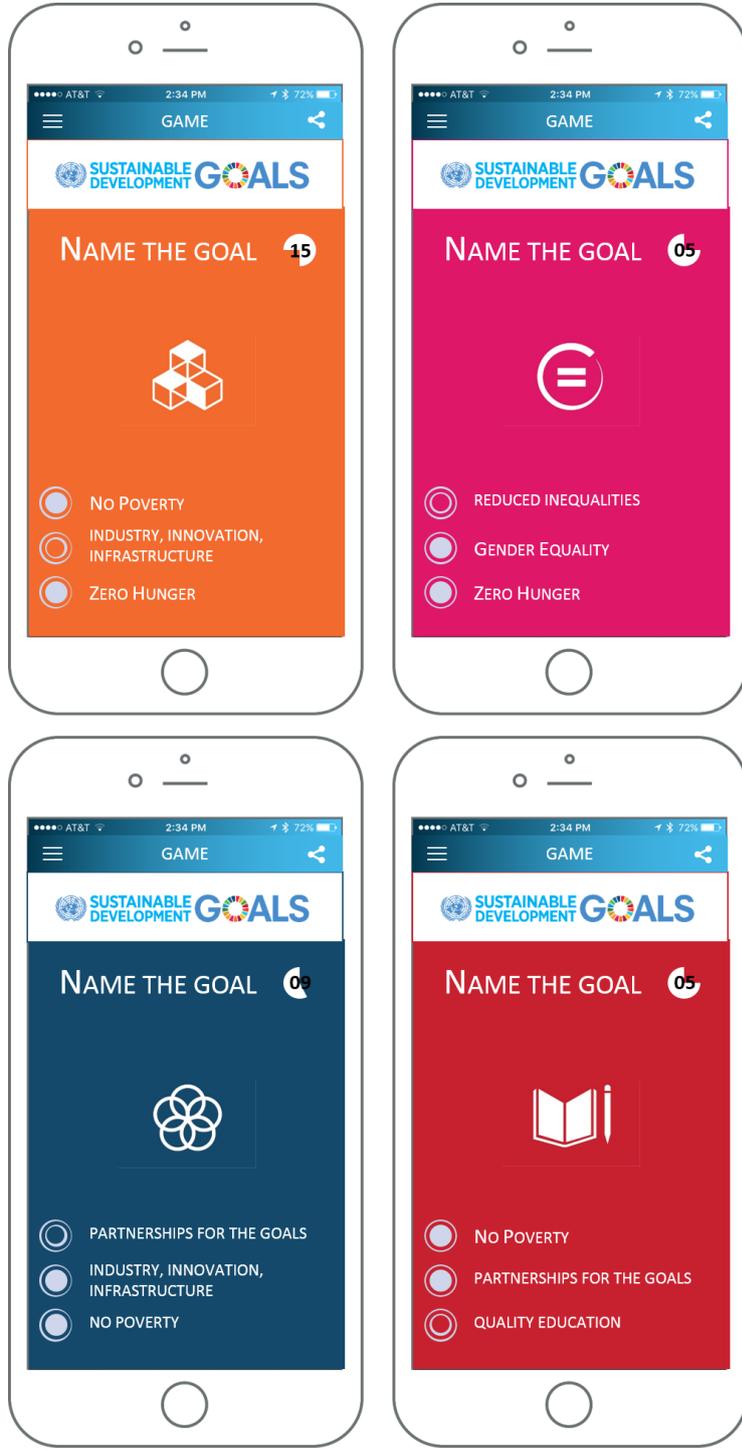


<b>Screen #</b>	8	<b>Screen Title</b>	Game Card – Goal 2
<b>Objective</b>	State the 17 SDG's from memory Explain the 17 SDG's in own words Communicate awareness of the 17 SDG's		
<b>Text/Graphics</b>			
<div style="display: flex; align-items: center; justify-content: space-between;"> <div style="text-align: center;">  <p>Feedback graphics also convey progress in game</p> </div> <div style="text-align: center;">  <p>Countdown timer affects overall score and displays time remaining to answer</p> <p>1 of 17 icons representing given SDG</p> <p>Learners try to choose the correct answer as quickly as possible</p> </div> </div>			
<b>Notes to Developer</b>	<p>Multiple choice responses and icons should be randomly generated. This way learners cannot earn high scores from memorizing answer patterns but rather from learning and memorizing the goals and their icons. Timer to be 20 seconds, and built understanding time expired/remaining when the learner submits their response is directly tied to the scoring system. When a correct answer is chosen, learners being able to choose in a faster time period will receive a higher score. To ensure overall learners final results scores have the greatest chance in variability and therefore increasing competition and repeated use of the game, scoring to the hundredth of a second should be implemented in the scoring algorithm.</p>		



<b>Screen #</b>	9/10/11/12	<b>Screen Title</b>	Game Card - Goal Examples 9, 10, 17, 4
<b>Objective</b>	State the 17 SDG's from memory Explain the 17 SDG's in own words Communicate awareness of the 17 SDG's		

**Text/Graphics**



Each goal is matched to the color it has been assigned by the UNDP. Color association aids in the memorization techniques



## Practice Opportunity

This learning solution itself is the practice opportunity in its entirety. It ties in physical practice in the shape of a memory game with the ability to interact with the infographic electronically, as well as the Leader Boards and compete with their friends and neighbors. An example of the memory game in action tying into the SDG goal review is depicted below.



### Assessment Item

The assessment for the participant is in the form of a Leader Board that will allow the participant to see where they rank compared to multiple factors. The learner can see how they rank within their country, their friend group, their city, or globally against everyone playing the game.

<b>Screen #</b>	13	<b>Screen Title</b>	Leader Board
<b>Objective</b>	State the 17 SDG's from memory Explain the 17 SDG's in own words Learn how/where to volunteer		
<b>Text/Graphics</b>			
<div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p>Sharing scores promotes friendly competition and spreads awareness</p> </div> <div style="margin-left: 20px;"> <p>Leaderboard can be filtered to view results and compare scores</p> </div>  </div>			
<b>Notes to Developer</b>	Ensure maximum amount of sortable options are used to increase likelihood the learner would be on or near the top of a leader board, as this result is likely to increase sharing and thus spread awareness. Build leader board with framework that will allow future rewards and challenges to run as a marketing campaigns when the UNDP so desires.		



## C – Evaluation Plan Summary

# DETAILED EVALUATION PLAN

Learning Objective	Learning Solution					
	Infographic		Poster	Card Game – Physical	Card Game - Digital	
State the 17 SDG from memory	Able to associate icons with goals by looking at poster over time		Able to associate icons with goals by looking at poster over time	Able to associate icons with goals by looking at front side of each card	Able to associate icons with goals by looking at front side of each card	
Explain the 17 SDGs in own words	Clicking / hovering over each icon reveals detailed information on each goal		Visiting website displayed on poster via scanning QR code or URL in a browser reveals detailed information on each goal	The reverse side of each card reveals detailed information on each goal	Accessed via “Review Goals”, clicking each icon reveals detailed information on each goal	
Spread Awareness of the 17 SDGs	Reposting infographic to social media. Clicking on social media accounts and hashtags to join online conversation.		Using mobile device, visiting social media accounts and hashtags to join online conversation.	Playing card game as a home, school, or business, learning opportunity results in discussions with others.	Sharing of any content possible with share button on every game screen, including game scores with others online.	
Learn how/where to volunteer	Clicking on website URLs found throughout graphic including for general or specific opportunities.		Visiting website displayed on poster via scanning QR code or URL in a browser reveals volunteer information.	The reverse side of each card reveals a web URL on each goal.	Accessed via “Review Goals”, clicking each icon reveals ways to volunteer and ACT on each goal	
Applying Kirkpatrick’s Levels						
<b>Level 1 - Reaction</b> They have a positive reaction to the 17 SDGs learning content	Spend significant time interacting with the content/return multiple times to content.		Spend significant time interacting with the content/return multiple times to content.	Game is played on multiple occasions	Spend significant time interacting with the content/return multiple times to content.	
Evaluation Method	Time spent (Totals; averages) on site viewing infographic.		Poster is and remains displayed in institutions. Amount of orders placed for poster.	There are multiple requests to play the game	There are multiple attempts at playing the game	
<b>Level 2 - Learning</b> They are able to state and explain the 17 SDGs	Able to recall goals by icon recognition. When asked, can elaborate on goals viewed during clicking/hovering over icons.		Able to recall goals by icon recognition. When asked, can elaborate on goals viewed during visitation to URL listed on poster.	Learners’ game scores for matching icons to goals are of passing standard. Learners able to explain a goal when asked.	Learners’ game scores for matching icons to goals are of passing standard. Learners able to explain a goal when asked.	
Evaluation Method	Mouse clicks and hovers on each goal for each participant.		Visits to site via the learning solution specifically designed QR code and website URL.	Game Administrator (or individual) play card game with group or individually until passing rate exceeds 75%.	Individual learners’ highest score average exceeds 75%.	
<b>Level 3 - Behavior</b> They are spreading awareness of the 17 SDGs	Sharing and reposting infographic to social media and around web. Conversing on social media.		Discussing poster in classrooms and institutions. Copies of poster are printed and displayed.	Discussing game scores and goals in classrooms and institutions.	Learners share scores and information - regardless of content – to social media and around web.	
Evaluation Method	Activity on social media related to SDG hashtags. Measure times infographic shared around web.		Amount of copies of online available printer-ready posters are printed. Amount of orders for available posters.	Amount of copies of online available printer-ready card games are printer. Amount of order for available card games.	Amount of share button actions completed by users of the app. Tabulate results and analyze trends. Leader boards.	
<b>Level 4 - Results</b> Volunteerism, Donations, and orders for materials are increasing.	Viewers of material are engaging on social media and visiting URL showing how to volunteer and get more involved.		Classrooms, businesses, and groups signing up for volunteer opportunities or raising money related to SDGs.	Classrooms, businesses, and groups signing up for volunteer opportunities or raising money related to SDGs.	Learners are using the URLs and ACT buttons embedded within game screens	
Evaluation Method	Mouse clicks and hovers on URL designed to showcase volunteer opportunities.		Track sign up for volunteer opportunities or tabulate total requests for more information from institutions.	Track sign up for volunteer opportunities or tabulate total requests for more information from institutions.	Amount of ACT button actions completed by users of the app. Tabulate results and analyze trends.	
Timeline						
Results Collected	Jun 19 – Jul 10	Jul 11 – Aug 07	Jun 19 – Aug 07	Jun 19 – Aug 07	Jun 19 – Jul 10	Jul 11 – Aug 07
Results Discussed	HLPF; Jul 10	UNGA 72; Aug 07	UNGA 72; Aug 07	UNGA 72; Aug 07	HLPF; Jul 10	UNGA 72; Aug 07

