

Geographic Education for Preschoolers: The *Dora the Explorer* Contribution

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Abstract

We propose that the preschool show *Dora the Explorer* contributes to geography education by introducing the use of a map on every episode, demonstrating a significant step in teaching preschoolers about maps and map use. Furthermore, we suggest that the format in which the map is presented supports learning, allowing it to serve as a cognitive organizer. This program is an important component in the development of geographic concepts and skills of children aged two to five. Because the show is seen by millions of preschool children around the world every day, it seems apparent that *Dora* provides geographical experience and background for these young viewers and will enhance the start of their formal education. Therefore, to assess the contribution of *Dora the Explorer*, we propose some research questions that might be addressed to assess the contribution of this show to the geographic education of preschoolers.

Keywords: *Dora the Explorer*, preschool geography education, map use, cognitive organizer, TV format, spatial intelligence

Introduction

With the creation of *Dora the Explorer*, Nickelodeon, an American children's channel, brought a seven-year-old Latina cartoon character and an

animated “Map” to television in 2000. More than 10 years after its debut, *Dora the Explorer* is still one of the most-watched preschool television shows in the United States (Nielsen Media Research, 2010) and continues to have an impressive reach and success (Cortés, Diaz-Wionczek, & Lovelace 2009; DeMott, 2010; Kit, 2010). Through the years, the series has won many prestigious awards including the Peabody Award for distinguished and meritorious public service by radio and television stations, networks, producing organizations and individuals, and the Imagen Award which recognizes the positive portrayal of Latinos in the entertainment industry. Thus, most would agree that *Dora the Explorer* has become a social phenomenon (Diaz-Wionczek, Lovelace, & Cortés, 2009).

The series was designed to make use of the Theory of Multiple Intelligences articulated by Howard Gardner (1993). By using these intelligences, preschool-aged children learn as they interact with the characters on the screen. *Dora’s* use of a map as a space organizer and as a way finder addresses spatial intelligence, and provides young viewers with the opportunity to gain geographic knowledge and develop map skills. Since the program brings ‘geography’ to millions of children, we believe that it deserves critical evaluation as to the nature of its contribution to geographic education.

Examining a Typical *Dora the Explorer* Episode

Nickelodeon has aired more than 120 *Dora the Explorer* episodes, and all follow a common format. *Dora’s* best friend and companion is a blue monkey named *Boots*. Together they go on adventures, often joined by other characters. *Dora* wears *Backpack*, a character who magically contains things that *Dora* needs on her travels, including an animated map (Figure 1). Most of the episodes are approximately 23 minutes long; however, a few are double in length.

Each episode starts with an introduction from ‘*Dora*’ where she welcomes the viewers and establishes that, “we have to go someplace.” The viewers are invited to join *Dora* on her journey, and participate along the way by helping her problem-solve in order to reach their destination.

Before *Dora* (and the viewer) embark on their journey, she asks while looking at the viewer, “Who do we ask for help when we don’t know which way to go?” Viewers are compelled to call back, “Map!” *Map*, the character, jumps out of *Backpack* and takes over the screen singing, “Who’s the guy you need to know when you’ve got a place to go?” “What’s my name?” [*The*

Map!. “Say it again.” [*The Map!*]. “Who can help you say, hey, I figured out the way.” “What’s my name?” [*The Map!*].’ As *Map* sings, a spatial map appears behind him and occupies the full screen showing the route that *Dora* and her friends need to follow to get to their destination. Thus, the map is on screen in two forms simultaneously: 1) the character (on the top left corner of the screen) and, 2) the spatial display (as a full screen background). After his song, *Map* tells the viewers the route to follow to get to the destination (Figure 2). As he describes the route, his eyes focus on the icon for each location which becomes highlighted on the map. In a regular-length episode, there are typically three locations to be visited. The character, *Map*, names the locations and then asks viewers to repeat the sequence, typically, three times. He ends by prompting viewers to tell *Dora* where to go first, and then disappears from the screen. In most cases this is the last time we see *Map* and the complete, full screen, spatial map.

Dora returns to the screen, standing behind the three icons of the locations from the map, and asks, “Where do we go first?” (Figure 3). After viewers have called out the first location, she turns to find the environment in which they must travel. Viewers are once again asked to participate by choosing the correct path to get to the location, which viewers see in the distance. This location matches the icon in the map almost exactly. Once *Dora* finds out (from the viewers) which path to follow, she goes down the path singing a characteristic travel song, “C’mon! Vámonos! Everybody, let’s go!”

Along the way and at each location there are frequent situations that require input from the viewers to help *Dora* solve problems using multiple intelligences. For example, logical/mathematical (e.g., patterns, number identification), verbal (e.g., saying, “Más nueces!”), kinesthetic (e.g., reaching to catch a ball), or spatial (e.g., picking the longer route with trees rather than the shorter route with no trees in order to stay away from *Owl*’s sight).

After we reach our goal at the final location, everyone celebrates and sings the characteristic end song “We did it!” and the episode concludes with *Dora* saying, “We couldn’t have done it without you. Thanks for helping. Gracias.” In its original broadcast form on cable television, the episodes are shown with no interruption, which helps maintain a strong linear narrative. When broadcast in foreign markets, an episode may be interrupted with commercials or announcements.



Figure 1. Four principal characters: Dora, Backpack, Map peeking out from his pocket, and Boots (Photo courtesy of Nickelodeon).

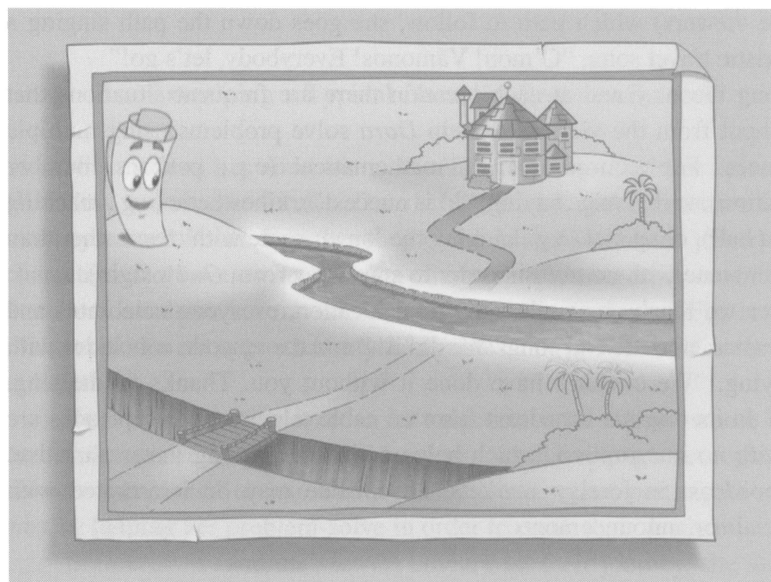


Figure 2. Map the character showing the route we have to follow. In this instance Map's eyes are looking at the river, which is highlighted in a bright glow (Photo courtesy of Nickelodeon).

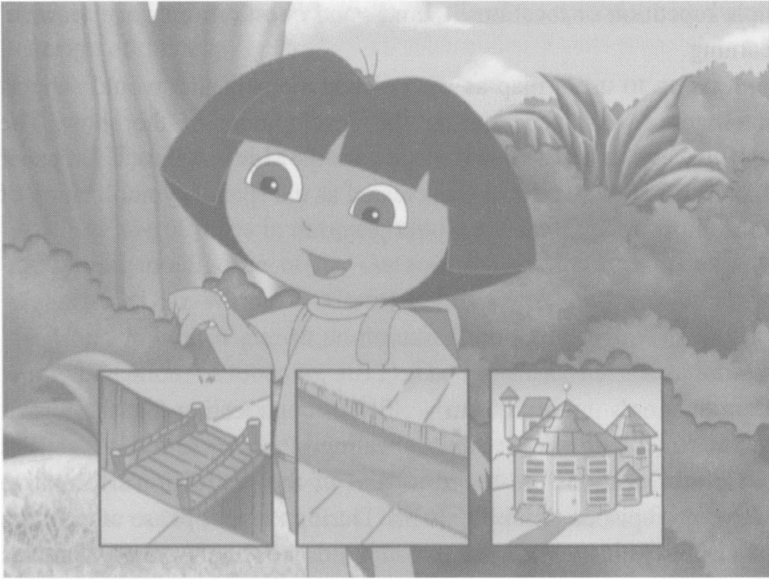


Figure 3. Dora is asking young viewers about the places where Map told viewers to go (Photo courtesy of Nickelodeon).

Incorporating “Map” into *Dora the Explorer* by Supporting the Narrative

Curriculum-based educational television for preschoolers has evolved from the basic interactive style established by *Sesame Street* to a more formal interactivity supported by the strong linear narrative of *Dora the Explorer* (Akerman, Bryant, & Diaz-Wionczek, 2011). Unlike other curriculum-driven shows, *Dora the Explorer*’s curriculum is seamlessly embedded into the show’s format. Each episode follows a narrative structure which always involves a high-stakes adventure, and viewers are asked to help *Dora* overcome challenges along the way in order to reach the ultimate goal.

Each episode features linearity, repetition, and interactivity. The show draws upon linearity through *Map*, which is present both as a character and as a spatial reference (Akerman, Bryant, & Diaz-Wionczek, 2011; Carter, 2009). By laying out the route, *Map* emphasizes the importance of completing intermediary steps *en route* to achieving long-range goals. Since interactivity fosters young viewers’ interest and facilitates the acquisition of knowledge and skills (Diaz-Wionczek, Lovelace, & Cortés, 2010), one could assume that

the multiple repetition of locations, themes, and questions enhance viewers' spatial learning.

The decision to use a map as a consistent element that would support spatial intelligence was made during the development of the show. The character *Map* was created as the interface with the viewers, thus, a flat paper map with one corner turned down was created as the spatial symbolization of the environment in which the story would play out.

Production Research on *Map*

The production's research team verifies through testing that the format employed for *Map* is both effective and appealing.¹ Preschoolers' recollections of *Map*'s various locations are tested as part of the production's formative research for every episode (Nick Jr., 2010). During the first phase of research conducted at preschools, children are read a storybook that closely imitates the style of the show. The scene with *Map* is typically summarized into one picture. The picture of *Map* is very similar (sometimes identical) to what children will later see when viewing the program on their televisions, and the narrative is very close to the animation's dialogue. Researchers code children's responses to *Map*'s requests to repeat the locations with him and to tell *Dora* where to go first.

After the children listen to the story, researchers interview them individually as well as in groups to assess their learning and recollection of specific elements, including *Map* and his locations. Children are presented with a picture of the map identical to what they viewed during the storybook reading and are asked, "What places did we go to in today's story?" The children are prompted to name the location with words rather than just pointing at it. Results from these tests indicate that children, typically, recall the three locations, either by name or attribute (e.g., naming a location, "trees" instead of, "forest"). Thus, based on the findings, location designs are sometimes changed or adjusted to be more visually appealing and memorable before the show is animated. On occasion, locations have been swapped based on children's feedback. One such example entailed moving a more exciting and/

¹ The research process was followed to ensure that viewers like and understand the episodes and has been described well in the literature (Diaz-Wionczek, Lovelace, & Cortés, 2009; Akerman, Bryant, & Diaz-Wionczek, 2011). Each episode takes about one year to develop from concept to a fully animated show and goes through three phases of research. Story concepts (in the form of storybooks) and unfinished videos are tested with pre-school children from varied racial, cultural, and socioeconomic backgrounds, with the creative team making plot and design changes based on the findings.

or visually appealing location to the middle of the episode, with the consequent redesign of the map.

The Use and Presentation of Maps in *Dora the Explorer*

The use of maps in the program fits the needs of an explorer, addresses the spatial intelligence of the Gardner schema, and serves as a “cognitive organizer” (Diaz-Wionczek, Cortés, & Lovelace, 2009). The journey supported by *Map* “is both a geographic one and a narrative one” (Walsh, personal communication, October 16, 2011). The show uses three locations on the map (and repeats them in the icon reviews) to help children comprehend and retain the story. During testing, when researchers ask children, “Where did Dora go today?” or, “What was today’s show about?,” they are able to recreate the story by reviewing the locations. This routine serves a twofold purpose: first, it gives young children a comfortable framework for each episode; and, second, it teaches the concept of consulting a map before setting out on an adventure. Overall, this demonstrates a significant step in teaching preschoolers about maps and map use.

According to Executive Producer and Co-creator, Chris Gifford, the orientation of the map serves an important purpose for the format of the show. Gifford (personal communication, February 19, 2009) states:

“*Dora* always travels from left to right, so the map typically starts on the left and ends on the right. Also, in TV format, objects located at the bottom of the screen are closer and objects higher up are far away. The layout of the map follows this format (bottom left is closer and top right is further away). An interesting thing we found while testing the story concepts with children was that we needed to connect the locations (with a path) if we wanted children to look at the map and tell the journey” (Figure 3).

The consistent way that maps are used in *Dora the Explorer* creates a unique map-use environment (Carter, 2005). In most television programming where maps are employed (e.g., news, documentaries), they normally appear on a television screen for a few seconds and are subsequently taken away. Viewers have to establish that they are looking at a map and have to determine what it illustrates before it disappears. By contrast, in *Dora the Explorer*, the map is typically presented at the same time and in a similar fashion in most episodes. The maps are generally consistent in their design and are introduced by the character, *Map*. As such, this presentation of maps is similar to that of

television weather programming where viewers tune in day after day to view new content on maps of a consistent style and format presented by known personalities (Carter, 1998). It is not coincidental that maps, presented in such a consistent manner, have popular followings in the U.S. on *The Weather Channel* as well as, around the world.

It is likely that preschool children who watch *Dora the Explorer* have had little or no exposure to maps and map use. Blades, Sowden, and Spencer (1995, p. 18) argue,

“... it is important to encourage children’s understanding of maps as soon as they are able to appreciate the idea that a map can represent part of the world around them. Realizing that a map can stand for something else is the first step in recognizing the importance of representations, and the starting point for learning how to use maps as sources of information about the world.”

With the consistent appearance of the flat maps in conjunction with *Map*’s interactive help, young children have learned to use these stylized maps. Blaut, Stea, Spencer, and Blades (2003, p. 166) hypothesize that the ability to map and use maps is, “universal in culture,” and, “is part of the cognitive development of children everywhere.” Thus, *Dora* and *Map* build on children’s inherent capabilities as they lead these young viewers through the on-screen map environments.

Certainly, many children understand the use of maps as presented in *Dora the Explorer*. It is fair to ask how this type of map use carries over to way-finding in the real world. It is evident that children can grasp the concept, as some have been known to ask their parents to draw “a map—the bank, the grocery store—so they can track their routes as *Dora* does” (McGinn, 2002, p. 54). There are many anecdotal stories similar to this, in which children ask their parents for help in making a map.

Map as Protagonist

It is not trivial that the character *Map* is a friend and hero to many young children who interact with him on a regular basis while watching *Dora the Explorer*. It should be noted that in occasional episodes, *Map* is a protagonist and does not disappear after giving directions to viewers for their destinations. In one episode, a bird grabs *Map* to be used to line its nest. As *Map* is carried

aloft he tells, *Dora* that she will have to make her own map. After she turns to *Backpack* to get paper and markers, we watch her draw her own map (Figure 4 and Figure 5). This is further reinforced when *Map* later inspects the map *Dora* drew and heartily approves. This scene seems to be very empowering for young children. One geographer related that at this point in an episode, his three-year-old daughter pauses the DVD, gets her paper and markers, and draws the map with *Dora* (Clarke, personal communication, November, 2009).



Figure 4. Dora has to draw her own map because Map was carried off by a bird (Photo courtesy of Nickelodeon).

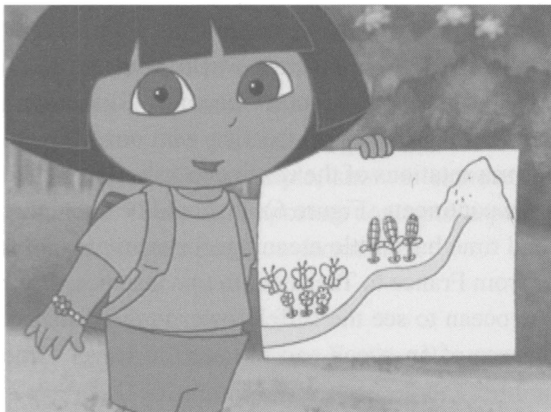


Figure 5. Dora is pleased to show viewers the map she drew taking us past the flower garden and corn field to the mountain (Photo courtesy of Nickelodeon).

Other Geography Knowledge and Skills Embedded in *Dora the Explorer*

The use of maps in *Dora the Explorer* is its basic tie to geography. It is often said that geography is, “the study of the mappable.” That is to say, if it can be mapped it should be of concern to a geographer. In every episode of *Dora the Explorer* some route and destination is always mapped, even though it is part of a fantasy world. It can be assumed that most children who watch *Dora the Explorer* time and again understand the role of the map and can make sense of the map as the representation of the environment in which the story plays out. However, one must recognize, while *Map* interacts with viewers and instructs them to give *Dora* directions, *Dora* will go where she needs to regardless of the viewer’s answer. Enjoying the program and interacting with it is not a test of a child’s ability to use maps.

Geographers know that map-making and map-use are human activities and, as such, are subject to human frailties. But the maps in *Dora the Explorer* are timely, correct, and never misread. For example, when a kitty is stuck in the top of a tree, *Map* knows exactly where the kitty is and creates a map to get there (Carter, 2008, p. 80). Although this omnipotent capability of *Map* gives an unrealistic image of maps, it, nevertheless, introduces the concept of maps to a vast audience.

In this fantasy world there are links to reality to help educate young viewers about many different environments; *Dora the Explorer* is set in a tropical rainforest with considerable variation in the appearance of that environment. On occasion, *Dora* finds herself in distinctly different physical and cultural landscapes, including towns populated by humans.

The most geographical episode may be, “Dora’s World Adventure,” an extended episode in which, *Dora* travels to France, Tanzania, Russia, and China. The map employed is a rotating global perspective with considerable detail and information in the representations of the continents as well as in the portrayal of surface cover on the continents (Figure 6). It should be noted that in this fantasy world, space and time have little meaning, for example, *Dora* is able to take a motor scooter from France to Tanzania. In one instance, *Dora* and her friends look across the ocean to see the Eiffel Tower in the distance. Nevertheless, at least the presence of an ocean and the need to travel some distance is acknowledged.

Although the show takes place in a fantasy world, children see variations in the physical environment. *Dora* and friends contend with the sun, winds, and clouds, however, the program stays away from anything threatening, and promotes caution, for instance, when near water or on steep slopes. Islands

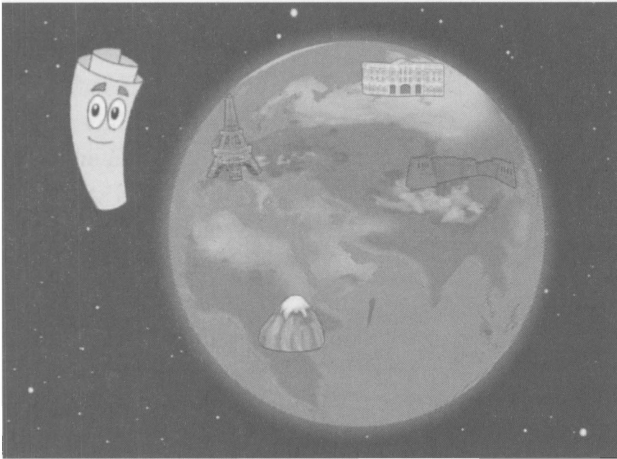


Figure 6. Snap shot from the rotating global image where Dora travels to France, Tanzania, Russia and China. In this exception, Map does not appear on the map but stands to the side as he shows us where to go (Photo courtesy of Nickelodeon).

are introduced as places surrounded by water and separated from other areas where crossing the water to get to an island is sometimes the task. At other times, *Dora* and her friends travel through a dry environment with a western U.S. flavor (Figure 7).

Snow is also present on occasion. There is snow in Russia when *Dora* travels there (although it is warm in China and France on that same trip). Sometimes a tall mountain will have snow at its peak, which recognizes colder temperatures that come with height. In one episode, *Dora* is called on to help unscramble the seasons, summer, fall, winter, and spring. To do this, children are asked to help *Dora* match the right image of the season with its name. For example, snow is characteristic of winter and very high elevations. These are important concepts, especially for children who will not see snow in their home environments.

Thoughts on Further Research Directions of *Dora the Explorer* and other Children's Programming on Preschoolers' Spatial Development

After more than a decade of *Dora the Explorer*, a large number of children now in elementary school have spent many preschool hours interacting with

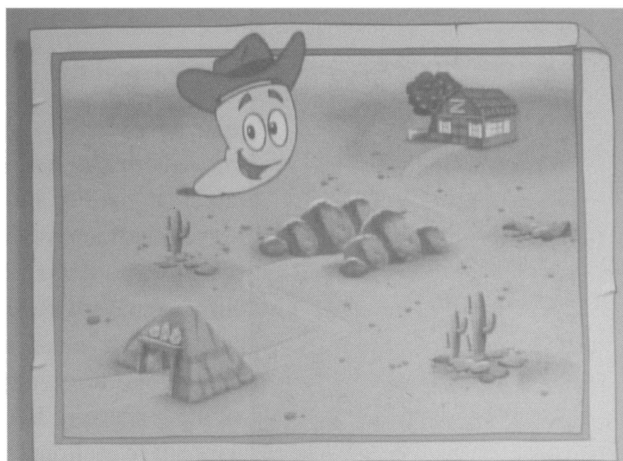


Figure 7. Map in cowboy hat in a desert environment showing the path through a mine and rock pile to Benny's Barn, which is located in a more humid area (Courtesy of Nickelodeon).

Dora and Map. Likewise, there are many children of the same age who have not watched *Dora the Explorer*. We ask: "To what extent might the influence of *Dora the Explorer* be measured and evaluated, particularly in terms of geographical dimensions?" Further, "Is it possible to identify the contributions gained by children from watching *Dora the Explorer* in comparison to other preschool media experiences?"

Currently, there are more than 40 programs on television targeted at preschool children. We ask: "How many, if any, have geographical content?" If so identified, "How might that content relate to the standards established by *Dora the Explorer*?" and, further, "How might that content be different from that of *Dora the Explorer*?" and, finally, "What is gained by different approaches?"

With the emergence of tablets and other interactive computing devices many new applications are being developed for the preschool audience. Other avenues yet to be explored include: "What is happening in this digital world for preschoolers in terms of geographic content?" and, "How might that compare to the geographical approaches of *Dora the Explorer*?"

Finally, one might also ask: "Of the many episodes of *Dora the Explorer*, which ones have particular relevance to the national geography standards, and which do not?" The answers to many of these questions will provide researchers with the knowledge and opportunity to develop criteria to evaluate

what might and/or should be presented to preschool children of a geographical nature based on the success of *Dora the Explorer*.

The “Beyond the Backpack” campaign in the U.S., designed to promote getting children ready to go to school, employs the character, *Backpack*, from *Dora the Explorer* as a recognized image for young children and their parents (DeMott, 2010). From this, researchers might examine how the character, *Map*, can be employed for the betterment of geographic education and the sciences and social sciences.

Dora is a young bilingual Latina who lives in a fantasy Latino world. Her house and family reflect that culture because she visits towns comfortable to Latino communities. For example, *Dora* celebrates “Three Kings Day,” (January 6th), and attends her cousin’s *Quinceañera*, a special birthday party that celebrates the 15th birthday of a girl marking her transition into young womanhood. Additionally, much of the music in the series has a Latino flavor. As such, this program has a cultural geography dimension, and one might ask: “Do children who have watched *Dora the Explorer* recognize any cultural differences and if so what do they take away from the experience?” (see Guidotti-Hernandez, 2007). Because *Dora* is seen in many countries and translated into many languages, it should be possible to perform cross-cultural studies to evaluate how the program is viewed and how the character, *Map*, is used and understood. How available is this educational and entertaining program around the world? How is it accessed and by whom? What other programming is available for preschoolers in the areas where *Dora the Explorer* is received?

Conclusion

Dora the Explorer is a cultural phenomenon of worldwide dimensions. As an explorer, *Dora* utilizes maps to go places, yet we have not been able to find any studies that have measured whether map skills of preschoolers have increased and/or improved after watching *Dora*. Millions of children have watched *Dora the Explorer* and reportedly many of those viewers have been intensely engaged with the action in the many episodes. Because there is geographic content in most episodes, we can assume this program is an important component in the development of geographic concepts and skills of children aged two to five. We challenge researchers in geographic education to identify what concepts and skills are being developed and build on that content, as well as, in other children’s programming with geographic and spatial content.

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