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Introduction

The public shouldn't be overlooked, as they represent conservation's biggest ally. If hundreds of conchs were poached only a few months ago, is conservation science actually working?

South Florida's beaches are home to many threatened species like the Queen Conch (*Aliger gigas*). Yet current conservation signage, if there is any, often fails to effectively inform and capture the public's attention. For example, *Miami-Dade County Parks, Recreation, & Open Spaces Department Marketing & Development Division* uses a standardized conservation template to convey information shown below. Yet feedback, even from the County's commissioners, suggests that it's ineffective. This gap is a major contributor to public misunderstandings and the Queen Conch's recent classification as a threatened species in 2024.

It is my belief that current methods are not working because there is a lack of effective and impactful media and research geared towards educating the public through signage. Signage shouldn't be seen as trivial, but as a tool for connecting people to the species and habitats around them.



Which design elements are most effective at conveying conservational information to the public and changing their behavior?

My version



Sign 1

+1.56 Mean change
score after

Average of 3.83 after

Methodology

- 108 participants were divided into three groups (36 each) and were shown one of the three signs tested
- Three different signs were tested, each with different elements such as
 - imagery
 - wording
 - layout
- Questions measured
 - Prior knowledge on the Queen Conch
 - Knowledge after viewing the sing
 - Legal knowledge of taking conch
- Signs were tested at public locations in South Florida with a convenience sample of participants



Participants voluntarily
approached a table with conch
related items to participate in
the study as shown

Collecting feedback from Daniella
Levine Cava, Mayor of
Miami-Dade County



Sign 2

+1.67 Mean change
score after

Average of 3.83 after

Conclusion

My results support the conclusion that signage's elements play a critical role in shaping their impact.

This study underscores that the power of sign designing can make a monumental difference in the public's understanding and science. By collaborating with scientists, professors, artists, governments and the local South Florida community, interdisciplinary insights are integrated. Illustrating that effective signage design helps to transform an overlooked species into a recognizable component of a local ecosystem that creates a call to action that changes human behavior.

By filling a gap in interdisciplinary conservation science research, this study demonstrates that **signage is one of the few easily accessible and available tools that has the capacity to form a long lasting impact.**

Knowledge Gap

A total of **69.4 %** of people who took the survey **did not know** the current laws regarding shell collecting and Conch

Sign 3

+2.33 Mean change score after

Average of 4.14 after

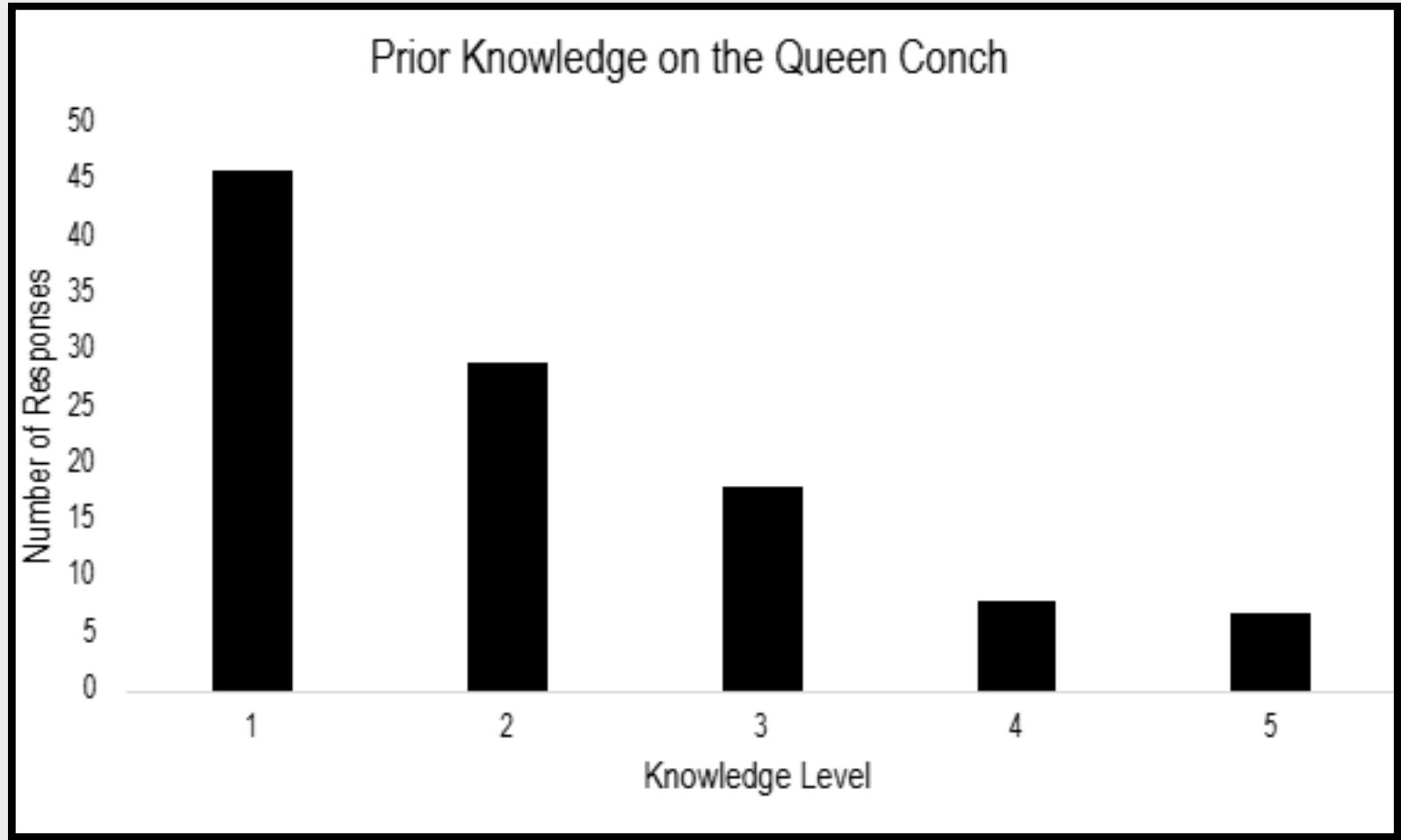
A 15.4 % increase in mean change score compared to Sign 1

Results & Discussion

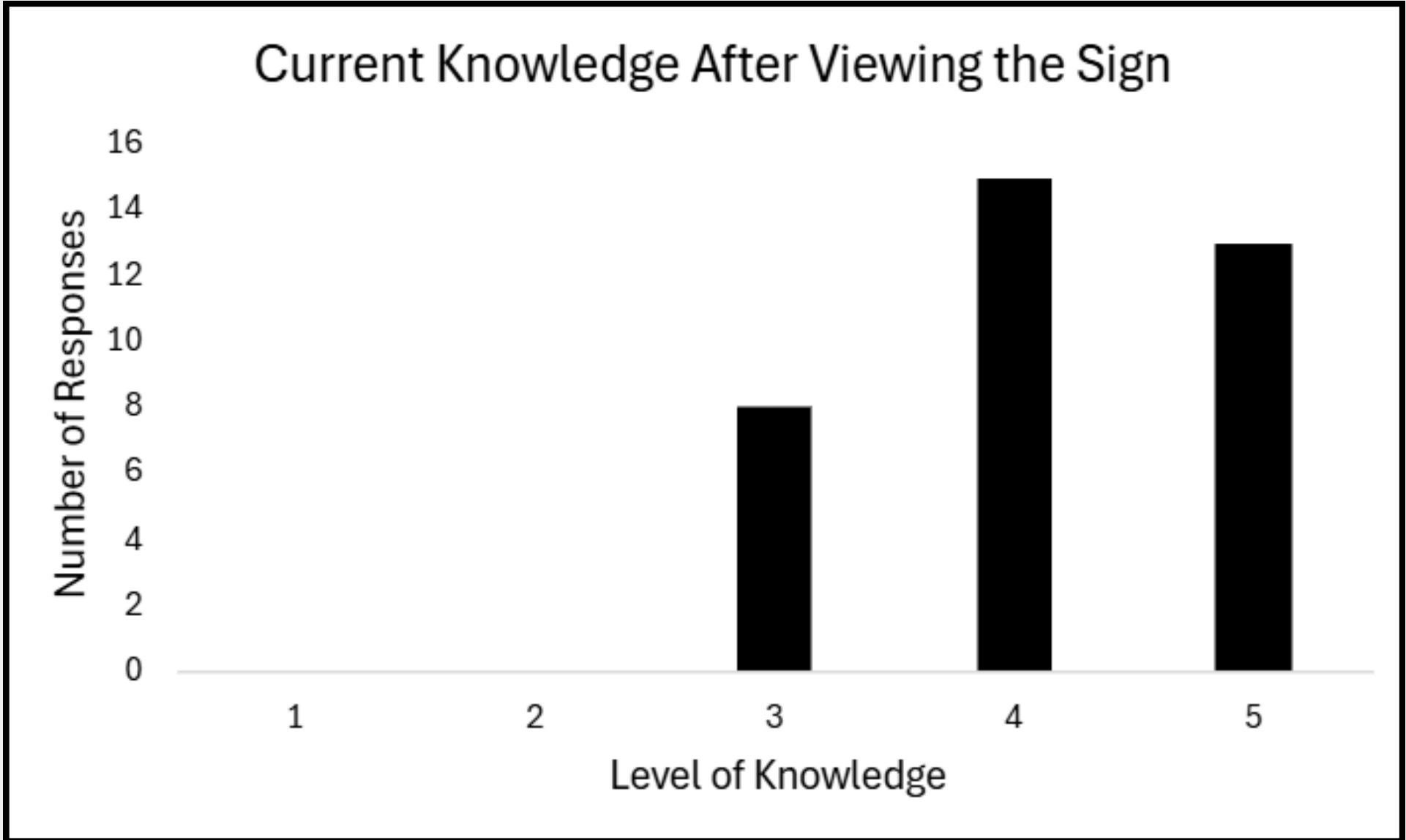
This study shows that signage that includes illustrations, educational facts, and serif font are the most effective tools in increasing the public's knowledge on conservation issues such as the Queen Conch.

All three of the designs increased awareness yet the strongest was Sign 3 with the elements listed above. The participants began with a low awareness of the Queen Conch with a mean of 2.08 on a 1-5 scale where 5 is the greatest amount of knowledge.

Before Viewing Sign



After Viewing Sign 3



Don't Disturb Conch

Harvesting or harming live conch is illegal.



Palm Beach County is one of the few counties the threatened Queen Conch calls home!

Queen Conch can grow up to 12 inches in length and live up to 30 years old

They feed on seagrass and algae, and serve as a food source for other marine animals like sea turtles

Nuestros caracolas reino están protegidas a nivel federal. Cosechar o dañar caracolas vives es ilegal y puede resultar en uno multa de \$500.

\$500 Fine