

**Playing Nice and Using Your Words: A Re-evaluation of Communication
Between Design Teams and Zoo Staff During Exhibit Design and Construction**



PLAYING NICE and USING YOUR WORDS:

A RE-EVALUATION OF COMMUNICATION BETWEEN DESIGN TEAMS AND ZOO STAFF DURING EXHIBIT DESIGN AND CONSTRUCTION

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Zoo Design Conference, Wroclaw, Poland

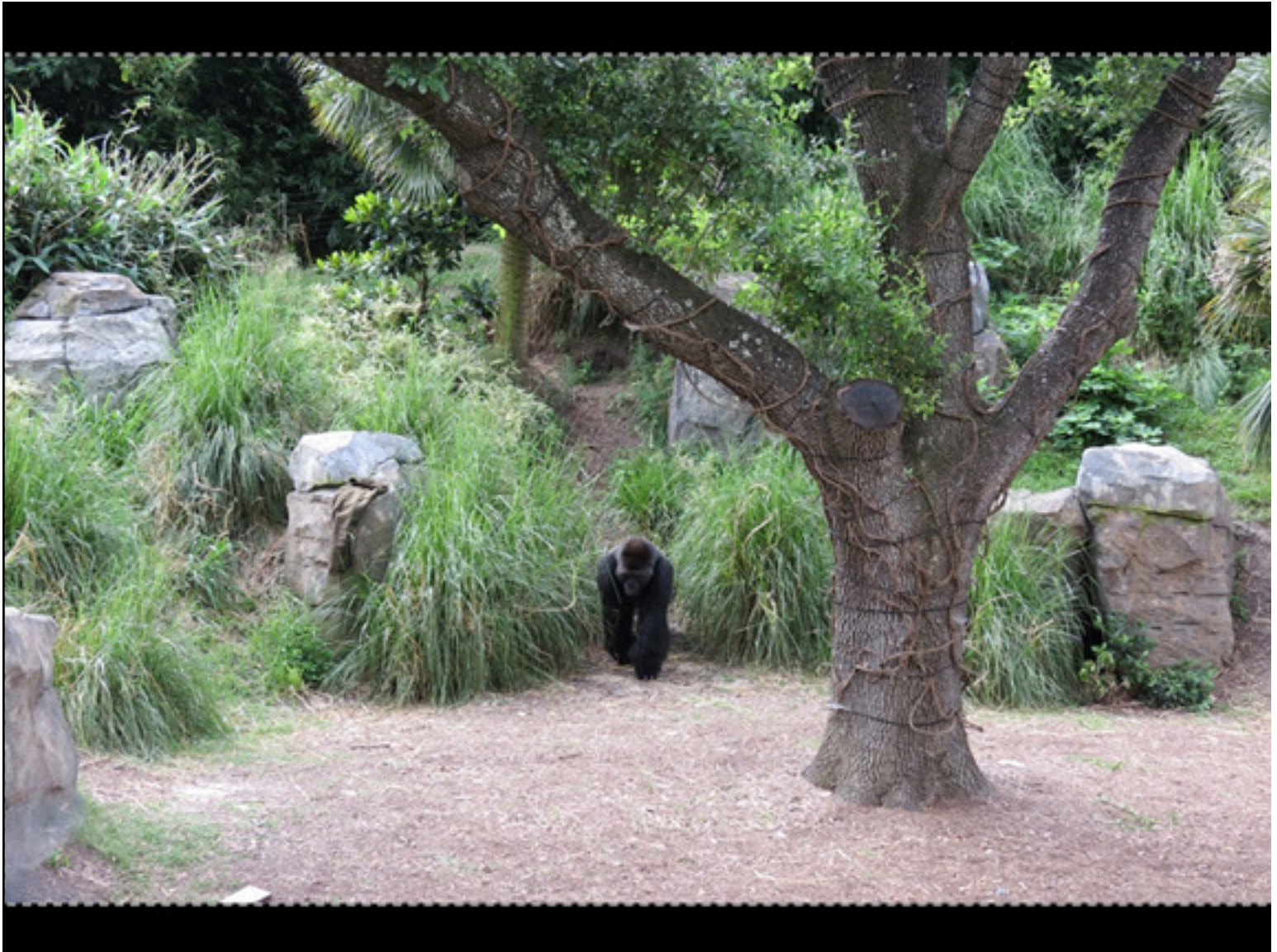
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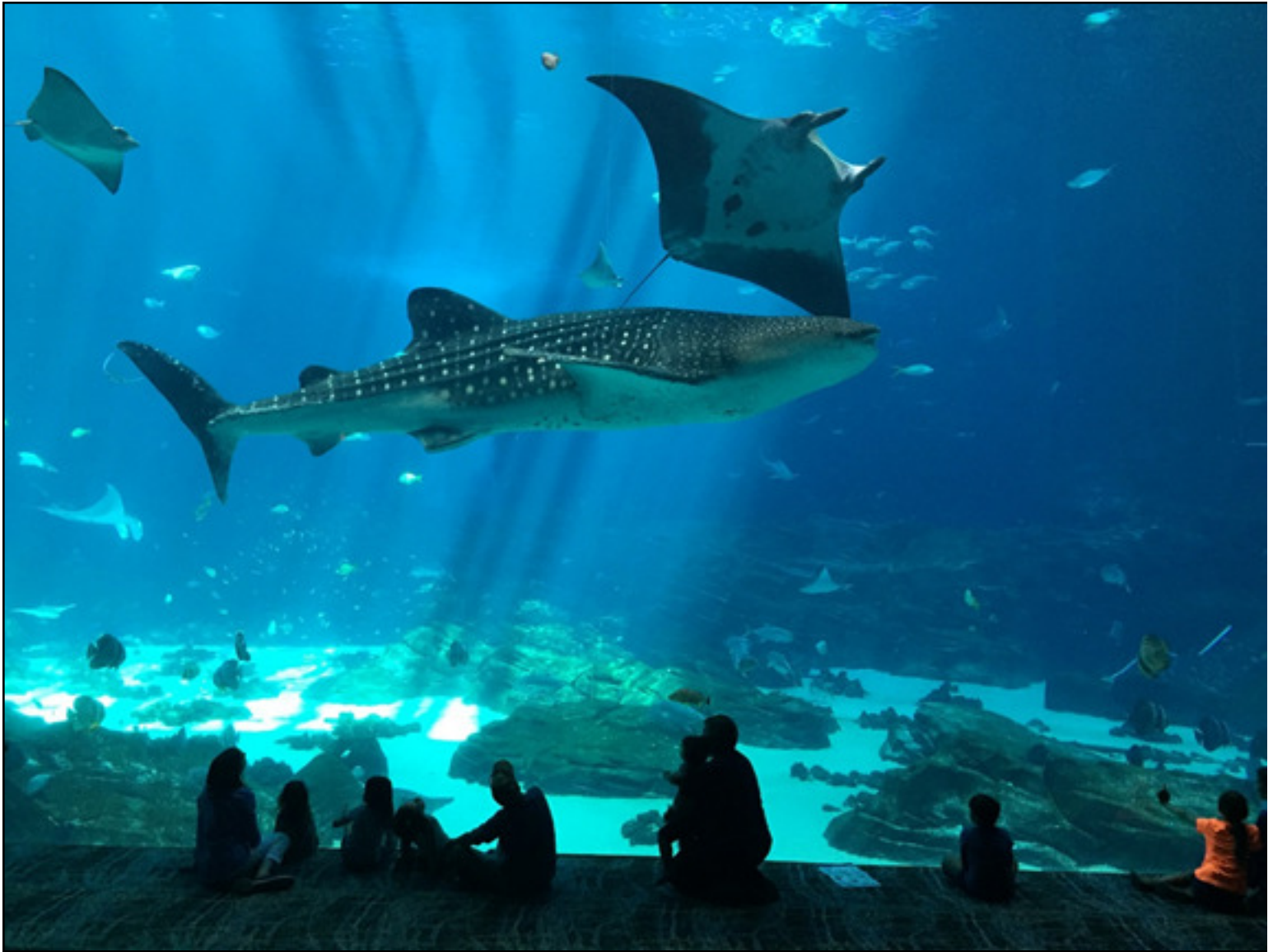
How does a project go from ideas and pretty drawings to ...

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...naturalistic habitats for the animal inhabitants and...

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...awe-inspiring encounters for visitors?

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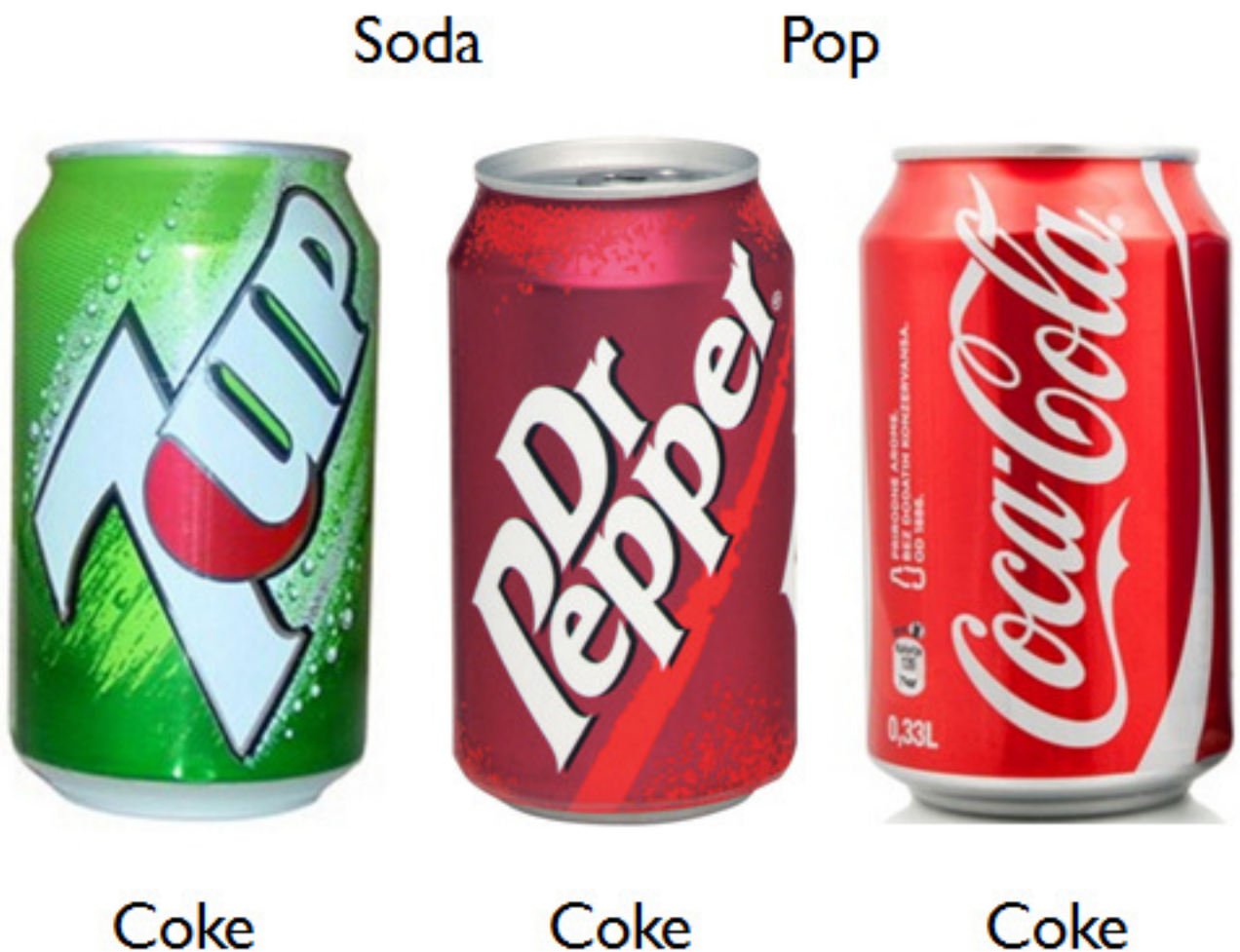
What does it take to create a memorable exhibit?



Zoo professionals and designers will tell you that it takes both good communication and stakeholder buy-in to create a successful exhibit.

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Communication: understanding or assumption?



But can common words have different meanings? What if zoo professionals and designers “speak” different “languages” resulting in a slightly different understanding ... or misunderstanding? Could this affect the outcome of and satisfaction with the exhibit design and construction process?

One example of a “word difference” comes from the U.S. In the South, “Coke” refers to several different soft drink products as opposed to one specific drink, the Coca-Cola. But in the North or Mid-West, soft drinks are referred to as “soda” or “pop”. If you didn’t know this, you might be confused if you answered “yes, I would like a Coke” and were subsequently asked “what kind”.

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Once Upon a Time....



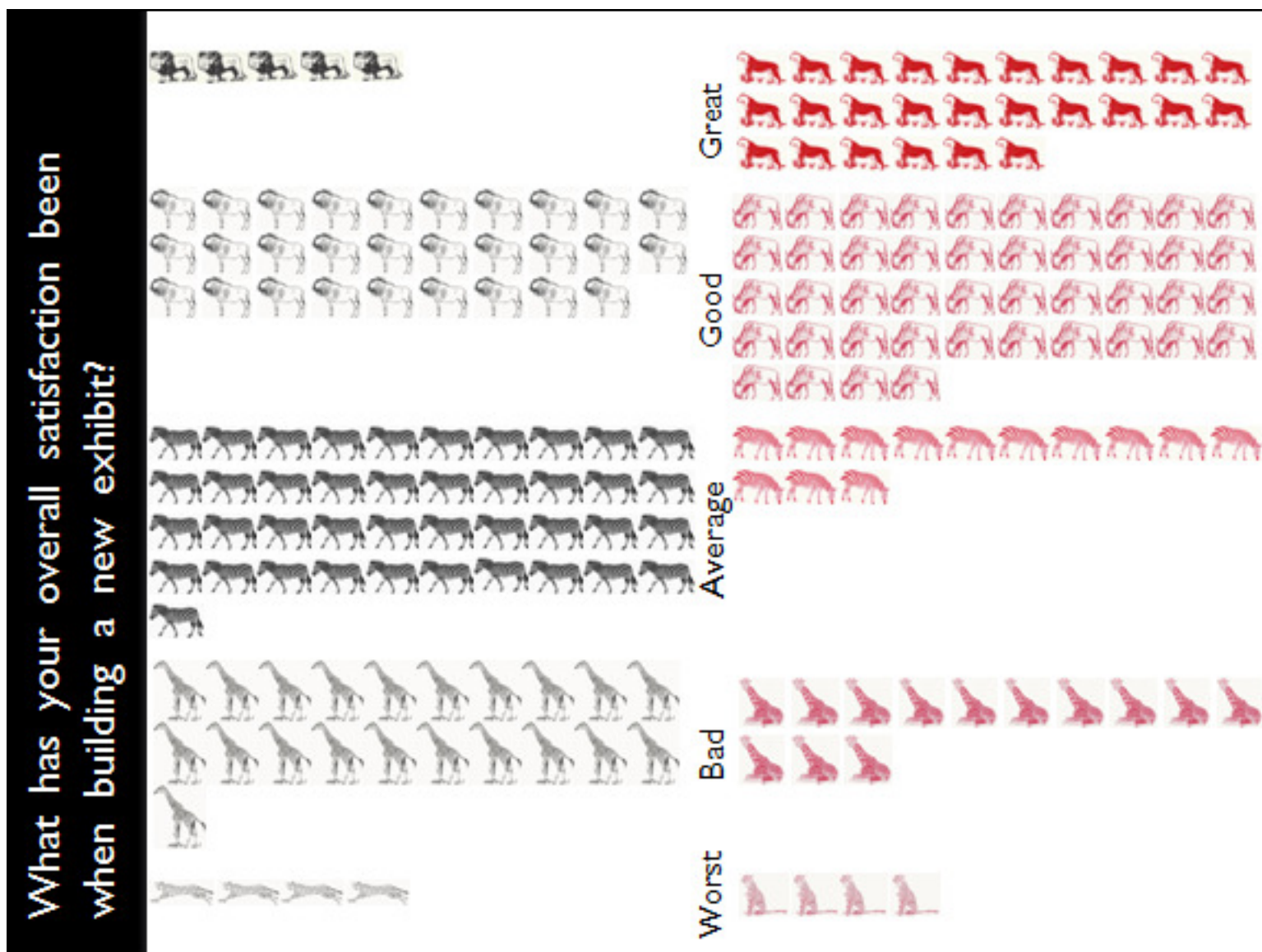
Note: the rhino and the water feature in the images are not those described in the story.

But could an assumption happen during an exhibit design and construction process?

One expensive assumption involved a rhino, a water feature, and an exhibit re-development. The process had good communication and staff involvement. The water feature was designed and would serve as a moat and drinking source. But the new filtration system had to be replaced after the exhibit opened because it was not designed to handle the extra load created by the rhino defecating in the water. Designers did not ask about this behavior, and keepers assumed that the information was common knowledge.

In order to see if zoo professionals and designers have similar thoughts regarding the design and construction process, two questionnaires were distributed to zoo associations, facilities, and design firms from around the world. Results will be discussed here.

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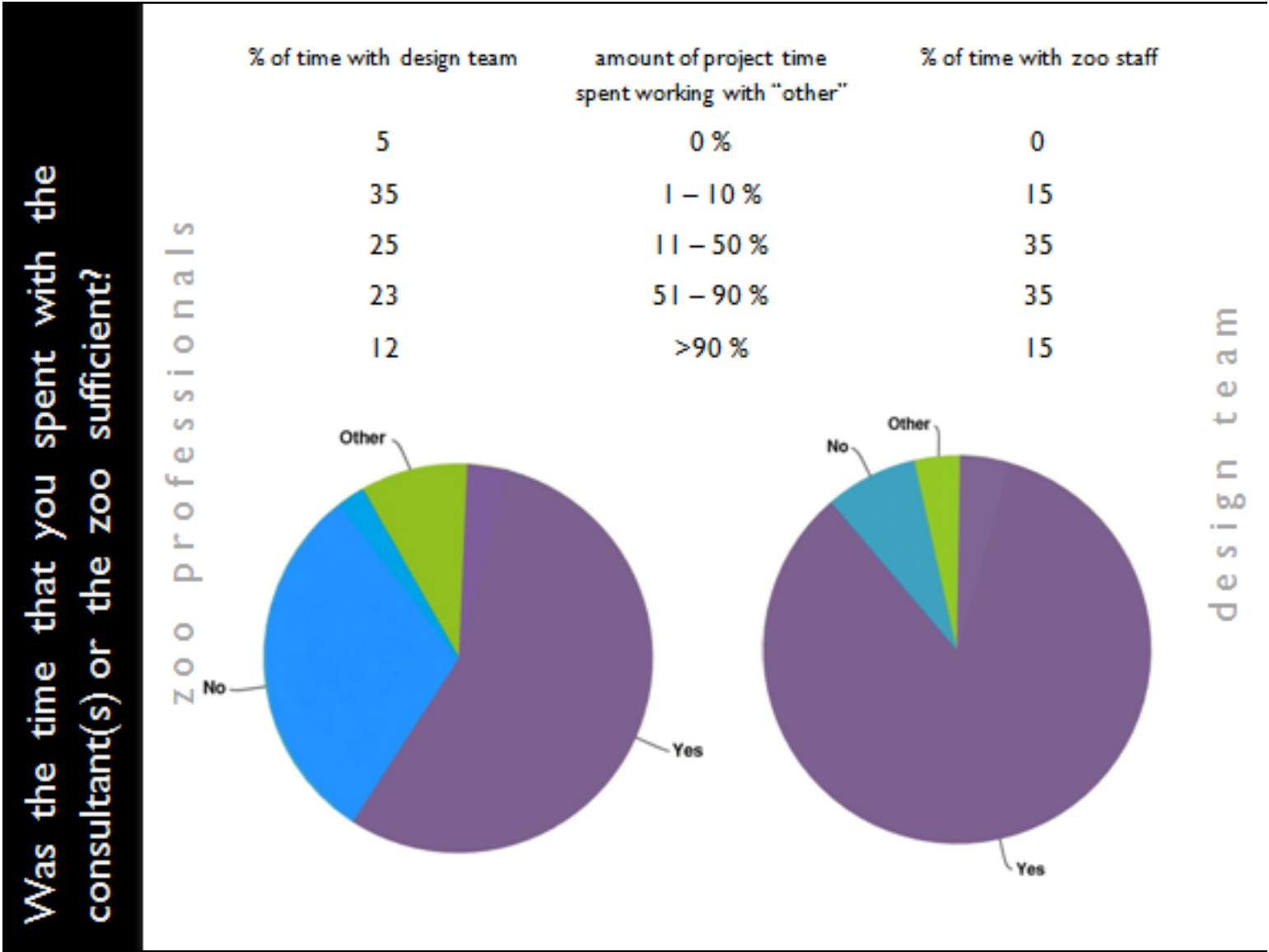


If both zoo professionals and designers understand the importance of “communication” then overall project satisfaction was expected to be similar.

This was not the case, as seen on this graph.

Responses from zoo professionals are represented on the left by the black animals while responses from design team members are represented on the right by the red animals.

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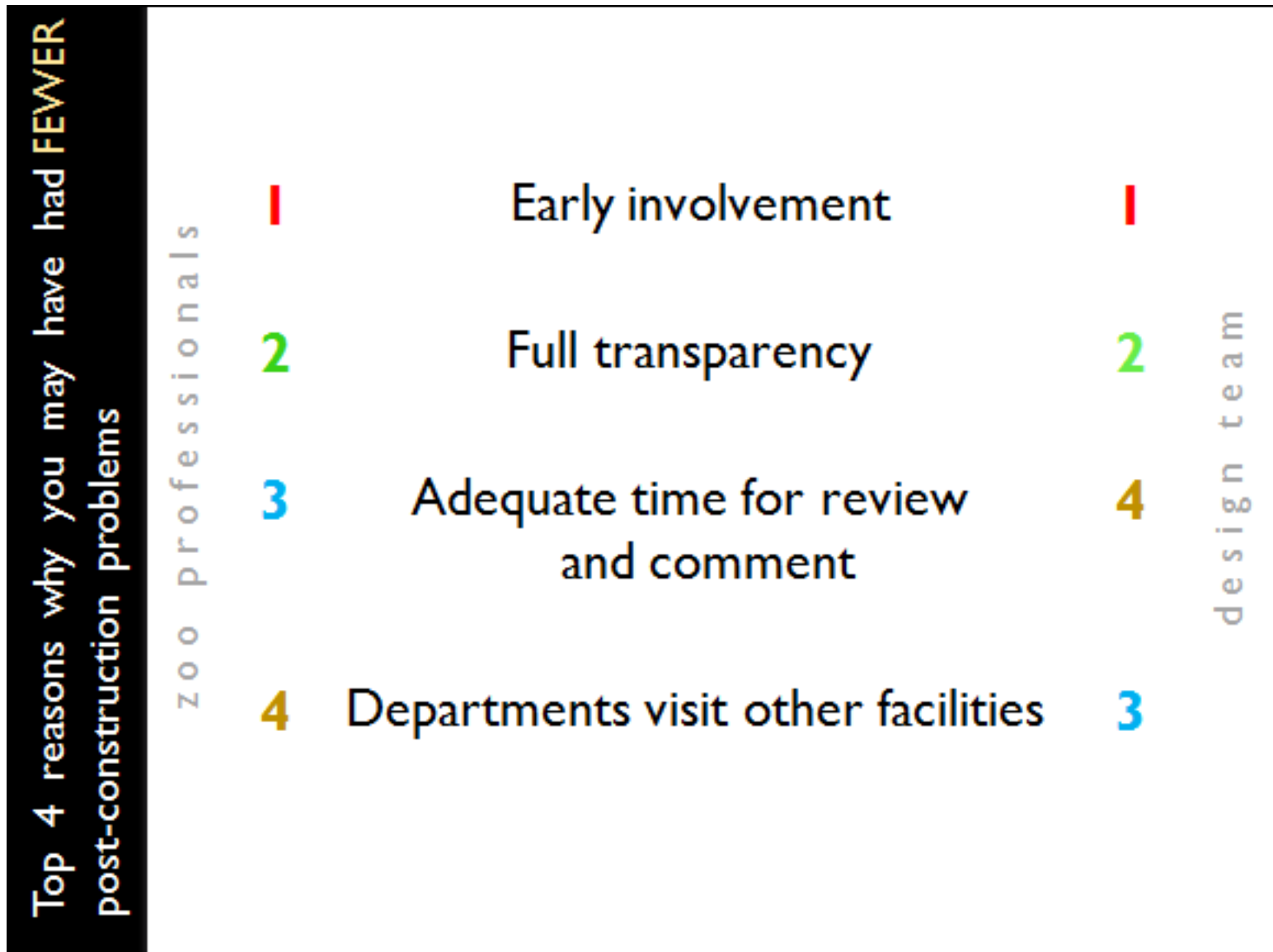


Comparing time that respondents felt that they spent with the “other” professional also allows us to see if perceptions are similar.

While interesting, the percentage of time spent with the “other” professional may be misleading: designers will meet with multiple departments whereas each department may only meet once with the designer during the same time period.

More telling was when they were asked if their time with the “other” professional was sufficient: designers felt overwhelmingly that it was sufficient while over ¼ of zoo professionals felt that they needed more time.

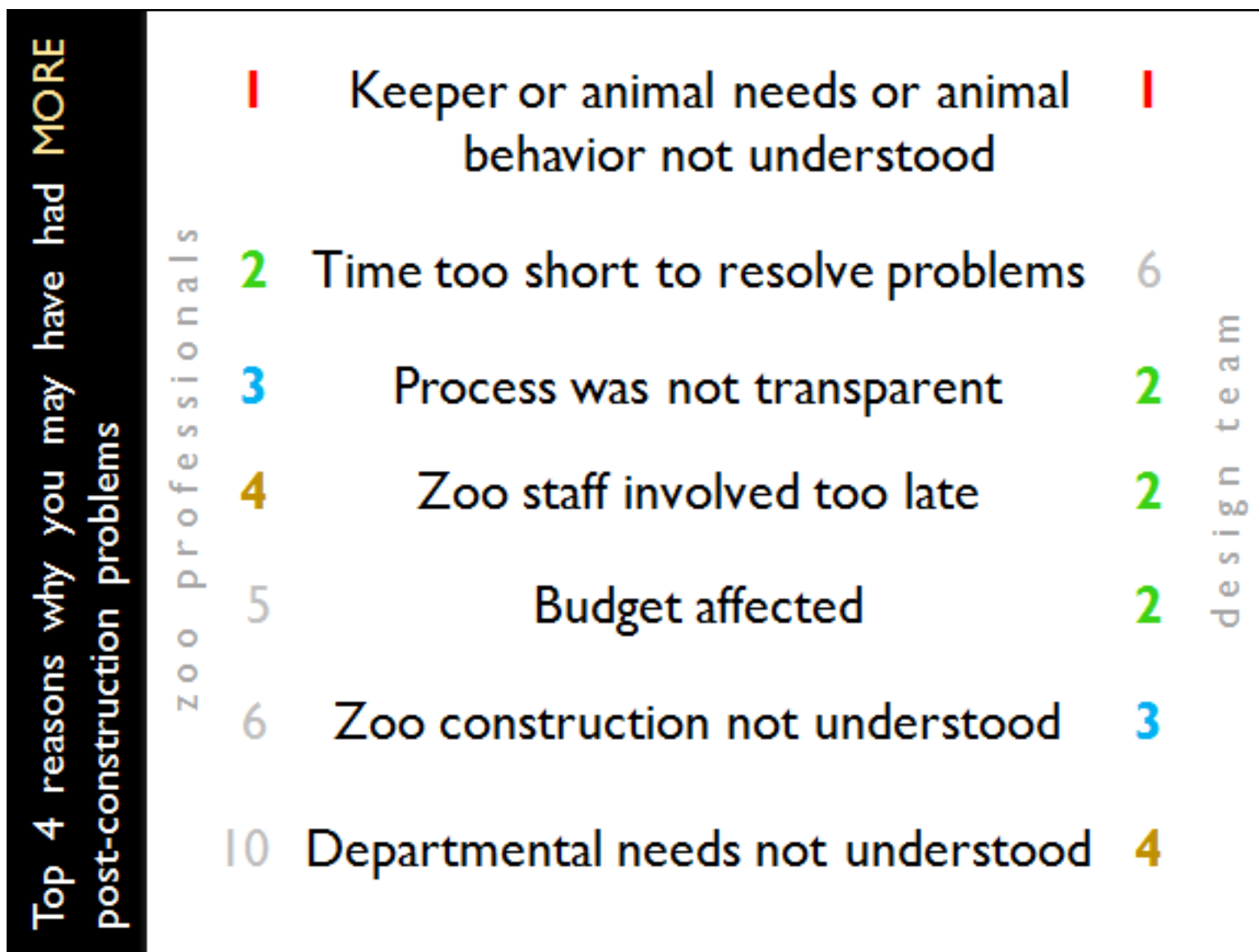
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Would zoo professionals and design team members select the same top 4 reasons that may contribute to **fewer** post-construction problems on their projects?

They did: top 4 reasons were similar.

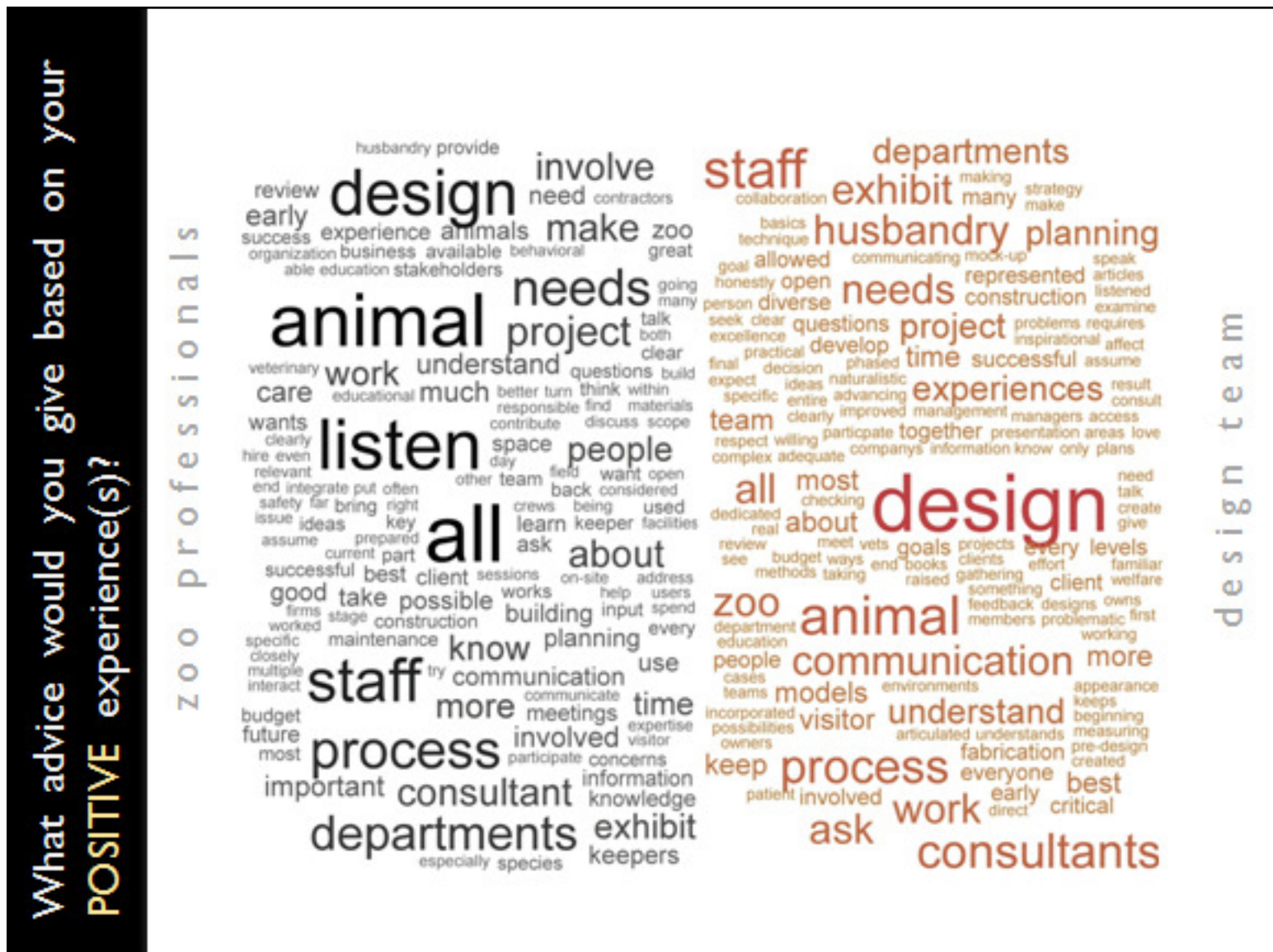
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Would they also select the same top 4 reasons “why” there may have been **more** post-construction problems on their projects?

While the number 1 reason selected was the same and involved a failure in communication, the other top 3 varied. Here a difference in focus and / or perspective can be seen in the choices selected.

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Would similar words be used if individuals from both professions were asked to give advice based on their **positive** experiences?

The following word clouds were created from that advice.

And while numerous words overlap both professions...

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...the top words varied. Interestingly, the selected words reference the profession which the respondents represent.

Zoo professionals most frequently used “all”, “animal”, and “listen” while design team members most frequently used “design”.

What advice would you give based on your **NEGATIVE** experience(s)?



Would similar words be used if individuals from both professions were asked to give advice based on their **frustrating** experiences?

We again see the use of many similar words which overlap the professions but...

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...the top words varied again between the professions.

This time zoo professionals used the word “design” most frequently while design team members used “all”, “animal”, and “process”.

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Recommendations for improving communication

STEP ONE:
COMMUNICATION STYLES VARY
SO DO NOT “ASSUME”

STEP TWO:
PREPARE
CLARIFY
LISTENS
EDUCATE
DISCUSS
REVIEW

From the questionnaire responses, we see that there are differences in perspectives between zoo professionals and design team members.

And, in order to compile suggestions about how both professional groups can more efficiently work together, the advice they gave in the questionnaire was reviewed, categorized, and summarized.

This resulted in these two simple steps.

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Recommendations: PLANNING	zoo professionals	design team
	P Provide a clear, precise vision, direction, and budget in your Brief.	Pose questions if the project Brief is unclear, vague, or too open-ended.
	R Relay your vision: normal – best practice - cutting edge – next gen.	Resolve to go above the expected and discuss new options and ideas.
	E Establish adequate time for the full process and unexpected delays.	Encourage a timeline to minimize design and construction overlap.
	P Plan staffing, training, and maintenance before exhibit design.	Preview staffing, training, and maintenance before exhibit design.
	A Allow each department to meet and share information with designer.	Allow time for individual departments to meet and share information.
	R Re-read the contract: if “it” is not written down, you won’t get “it”.	Record the exact end product(s) in the proposal.
	E Engage in dialogue: communication styles and assumptions will differ.	Engage in dialogue: communication styles and assumptions will differ.

During the **Planning** phases both zoo professionals and design team members have a responsibility to “**Prepare**”.

Not only information preparation but also expectations and the method of communication.

It is important to remember that “you” are preparing information for “someone” who has a different perspective, a different “language”, and different mental starting point.

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Recommendations: DESIGN		
	zoo professionals	design team
	C Collect information from each department in a “packet”.	Create department-specific “homework” for front-line staff.
	L Limit preconceived ideas; work as a team.	Limit preconceived ideas; front-line staff can be part of your team.
	A Allow design team to present new or untested ideas and information.	Allocate time to meet front-line staff in “small” individual meetings.
	R Remember 3-D images and videos should be more than pretty pictures.	Remember zoos are more complex than “regular” projects.
	I Identify new animal and visitor studies as well as routine information.	Innovate using new ideas, studies, information, and approaches.
	F Flag and show designers elements that need protection before design.	Find out “why” specific elements must remain and be protected.
	Y Yield before complaining: provide constructive criticism.	Yield before disregarding crits: listen, ask, understand.

During the **Design** phases, each group must be certain that they “**Clarify**” the information that they would like understood and the ideas that they would like to convey.

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Recommendations: CD DEVELOPMENT	zoo professionals		design team	
	L	Let designer have direct access to staff as well as a project manager.	L	Let production staff have direct access to front-line zoo staff.
	I	Inquire - if you don't ask, designers won't know that you have concerns.	I	Inquire - previous experience may not be relevant to this site.
	S	Scrutinize construction plans and details: redline and ask questions.	S	Scrutinize previously used details for appropriateness before re-using.
	T	Try charts such as RACI (Responsibility Assessment Matrix).	T	Try charts such as RACI (Responsibility Assessment Matrix).
	E	Evaluate Meeting Minutes and sign-off when you have read them.	E	Ensure detailed Meeting Minutes.
	N	Notify designer "why" specific manufacturer requests are made.	N	Note "why" specific manufacturer requests are made.
	S	Seek clarification on plans if you don't regularly read them.	S	Seek input from front-line staff and read their redlines.

Construction Document (CD) development requires that everyone "**Listens**".

Zoo staff at all levels have insight and information that can be important to the production of the CD set. When all participants "listen" to responses and ask questions, this critical information can be brought out.

Listening is equally, if not more important, than "telling".

When assumptions are made before listening occurs, information can be missed and assumptions can occur.

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Recommendations: CONSTRUCTION	zoo professionals	design team
	E Evaluate contractors for animal and containment experience.	Evaluate contractors for animal and containment experience.
	D Document and photograph. Photograph and document.	Document and photograph. Photograph and document.
	U Understand : construction is not flawless even with complete CDs.	Understand : front-line staff will be interested in construction progress.
	C Confirm that construction estimates are based on local costs.	Calculate construction estimates based on local costs.
	A Assert that the schedule allows early plant installation in habitats.	Arrange for early habitat plant installation allowing longer establishment.
	T Touch base and walk the site regularly with project manager.	Touch base and walk the site with staff and project manager.
	E Establish clear communication with contractor and project manager.	Establish clear communication between contractor and project manager.

It is important for both groups to “**Educate**” the “other” and themselves during the **Construction** process. Education is not one directional.

Construction is complex and unexpected “things” happen no matter how well the preparation and CDs are. But maintaining transparency and educating one another about specific site or process items will reduce misunderstandings and frustrations.

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Recommendations: SHOP DRAWINGS & SUBMITTALS	zoo professionals		design team	
	D	Decide which items must be reviewed with designer.	Decide which items must be reviewed with zoo staff.	
	I	Inquire about drain locations and size.	Inquire about drain locations and size especially in back-of-house.	
	S	Speak-up if you see something that appears to cut corners.	Spell-out Value Engineering-based changes upfront: no surprises.	
	C	Check the information in 3-D models or mock-ups.	Create 3-D models or mock-ups especially if detailing is complex.	
	U	Understand submittals before signing-off on them.	Understand that zoo staff has experience with facility repairs.	
	S	Suggest changes if experience shows a method which works better.	Support questions and suggestions about construction methods.	
	S	Share educational information and signage needs.	Seek additional information about educational needs.	

While **Shop Drawing and Submittal** review is part of the Construction process, it was separated here because, beyond educating, these reviews require that both professionals “**Discuss**” critical components with each other.

Shop Drawings and Submittals illustrate and confirm critical components (such as gate detailing) and products. If changes were made but not discussed in prior phases, they should be caught during these reviews, and discussion with affected departments occur to alleviate confusion, frustration, and post-construction misunderstandings.

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Recommendations: POST - CONSTRUCTION	zoo professionals		design team	
	R	Report to the designer elements that did not work or were not successful.	Request	report of elements that did not work or were not successful.
	E	Engage in post-occupancy studies (staff, animals, visitors) with designer.	Engage	in post-occupancy studies (staff, animals, visitors) with zoo.
	V	Visit the exhibit as a "visitor" not as staff and watch how it is used.	Visit	the exhibit as a "visitor" to watch how it is used.
	I	Interact with designers to tell them how things are functioning.	Interact	with front-line staff to see how things are functioning.
	E	Enjoy the new exhibit.	Enjoy	the new exhibit.
	W	Write a review of the process and how to improve it.	Write	a review of the process and how to improve it.

Even after project completion and opening the exhibit both professionals have continued responsibilities. **"Review"** is important during **post-construction**.

Not only should both professionals conduct reviews of the process and the exhibit, they should visit the exhibit "out-of-uniform" with regular visitors to see how it is used and to simply enjoy the new exhibit.

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In summary, understanding that zoo professionals and design team members come to the design and construction process with different perspectives and different “languages” is important in reducing assumptions and misunderstandings. Different styles of “professional speak” must be acknowledged in order to have good communication.

Two simple steps can reduce assumptions and misunderstandings.

A final thought: “(i)t was not my job to understand everything everybody does, in the same way that they do. It was to be able to ask the questions and help everyone knit things together and come to conclusions.”

(31 March 2017. KERA’s Think podcast. Interview with Alyssa Mastromonaco (a member of President Obama’s advance team))

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Thanks to everyone who participated in and/or shared the questionnaires including zoo and aquaria staff and design team members from around the world.

Special thanks to the following professional organizations that were asked to post or distribute questionnaire links:

**AAZK
AAZV
ABWAK
ALPZA
ARAZPA
AZA**

**AZFA
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BIAZA
CAZA
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EAZWV**

**ICZ
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THANK YOU



For questions or a summary of the questionnaire results, contact me at:
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