

Zebrafish on the Axiovert: A Comparison between Two Physical Layouts

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THIS IS NOT A DEFINITIVE FINAL REPORT

FORMATIVE evaluation studies like this one often:

- **are conducted quickly**, which may mean
 - small sample sizes
 - expedited analyses
 - brief reports

- **look at an earlier version** of the exhibit/program, which may mean
 - a focus on problems and solutions, rather than successes
 - a change in form or title of the final exhibit/program

Imaging Station Formative Evaluation Zebrafish on the Axiovert A Comparison between Two Physical Layouts

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PURPOSE

This study looks to see if there is a difference in visitor behavior for two different physical configurations of the standalone Axiovert station. Specifically, is there a difference in:

- holding time
- the number of visitors who looked at the media piece
- the length of time visitors looked at the media piece, and
- the size of the group (single or multi-user) that stopped at the station?

The specimen on display was the Zebrafish.

SETUP

Figure 1. Stand-alone exhibit setup- Not Physically Integrated. Note that the media monitor's position during actual test was lower, on the same level as the joystick and the focus knob.



Figure 2. Stand-alone exhibit setup- Physically Integrated



METHOD

- Observations

DATA COLLECTED

- Times. Data were collected during these days:

Not Physically Integrated

Day	Date
Wednesday	2/5/03
Friday	2/7/03
Saturday	2/8/03
Sunday	2/9/03

Physically Integrated

Day	Date
Sunday	10/5/03
Wednesday	10/15/03

- Demographics

Not Physically Integrated

Gender	Count
Male	36
Female	18
Total	54

Physically Integrated

Gender	Count
Male	30
Female	23
Total	53

Not Physically Integrated

Age Group	Count
Adult	32
Teen	6
Child	7
Under 8	9
Total	54

Physically Integrated

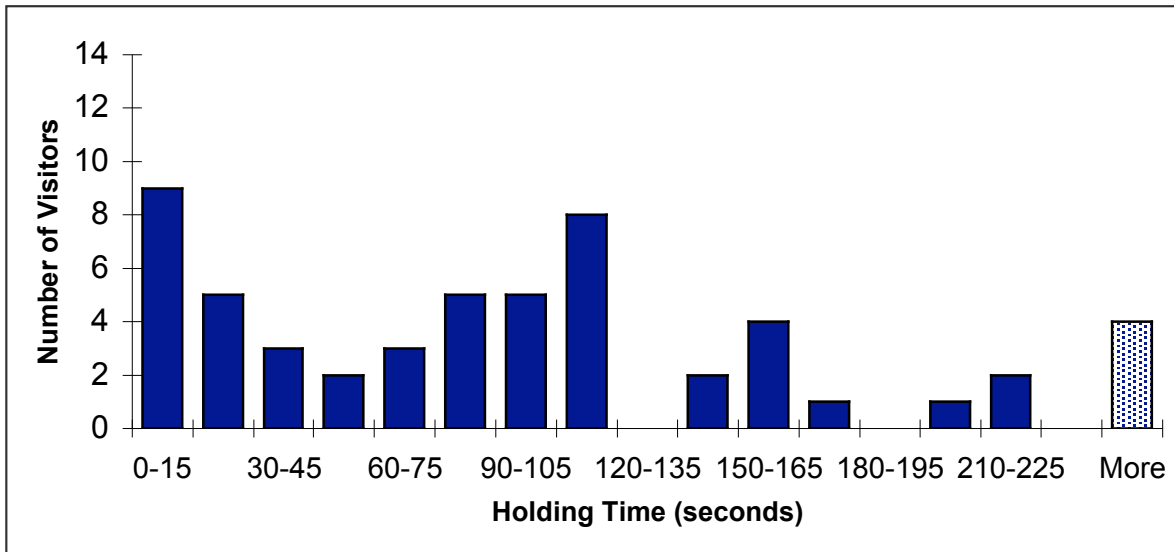
Age Group	Count
Adult	23
Teen	6
Child	16
Under 8	8
Total	53

FINDINGS

Was there a difference in holding time?

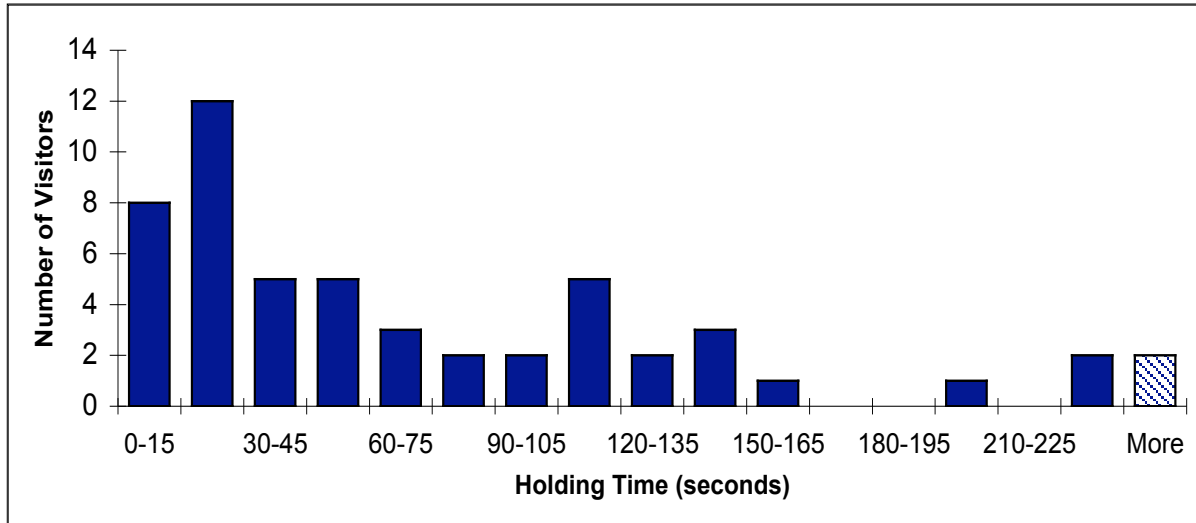
- Figure 3 shows the histogram of how long visitors stayed for the physically non-integrated layout.

Figure 3. Histogram of the holding time for physically non-integrated layout. N=54. Mean = 104 seconds. Median = 90 seconds. Maximum time =416 seconds.



- Figure 4 shows the histogram of how long visitors stayed for the physically integrated layout.

Figure 4. Histogram of the holding time for physically integrated layout. N=53. Mean = 76 seconds. Median = 47 seconds. Maximum time = 308 seconds.



- There is no significant difference between the physically integrated and the physically non-integrated layouts¹; $t(105) = -.907$, $p = .366 > .05$.

Was there a difference in the number of visitors who looked at the media piece?

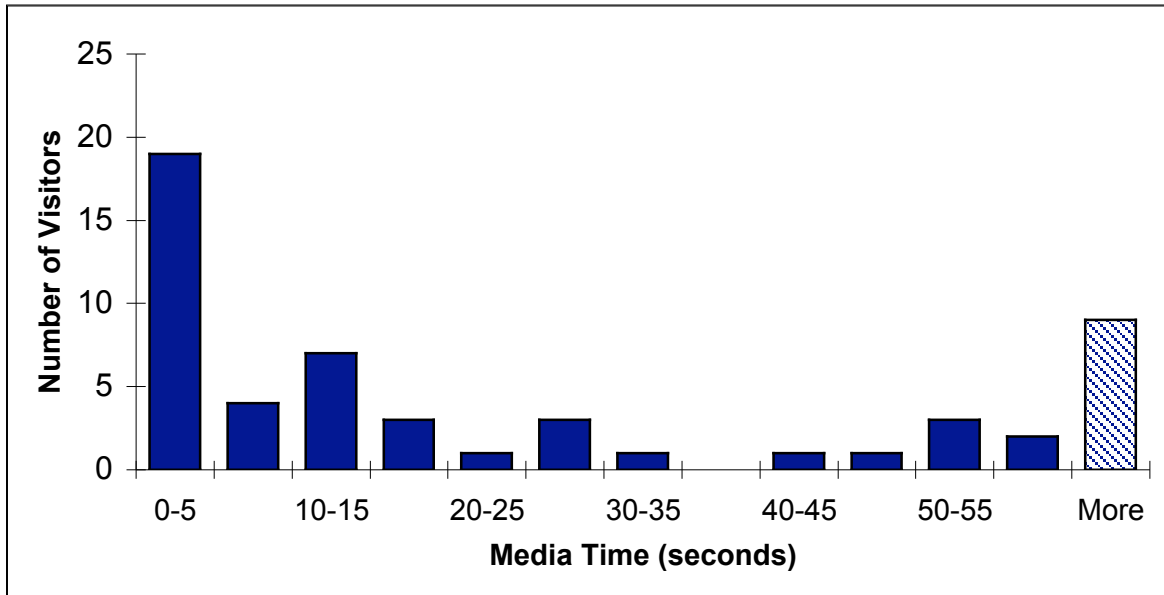
- 70% (37/53) visitors looked at the media piece for the physically integrated setup
- 76% (41/54) visitors looked at the media piece for the physically non-integrated setup
- There is no significant difference between the two layouts; Fisher's Exact Test, $p = .520 > .05$

Was there a difference in the amount of time visitors looked at the media piece?

We took a closer look at the visitors who did look at the media.

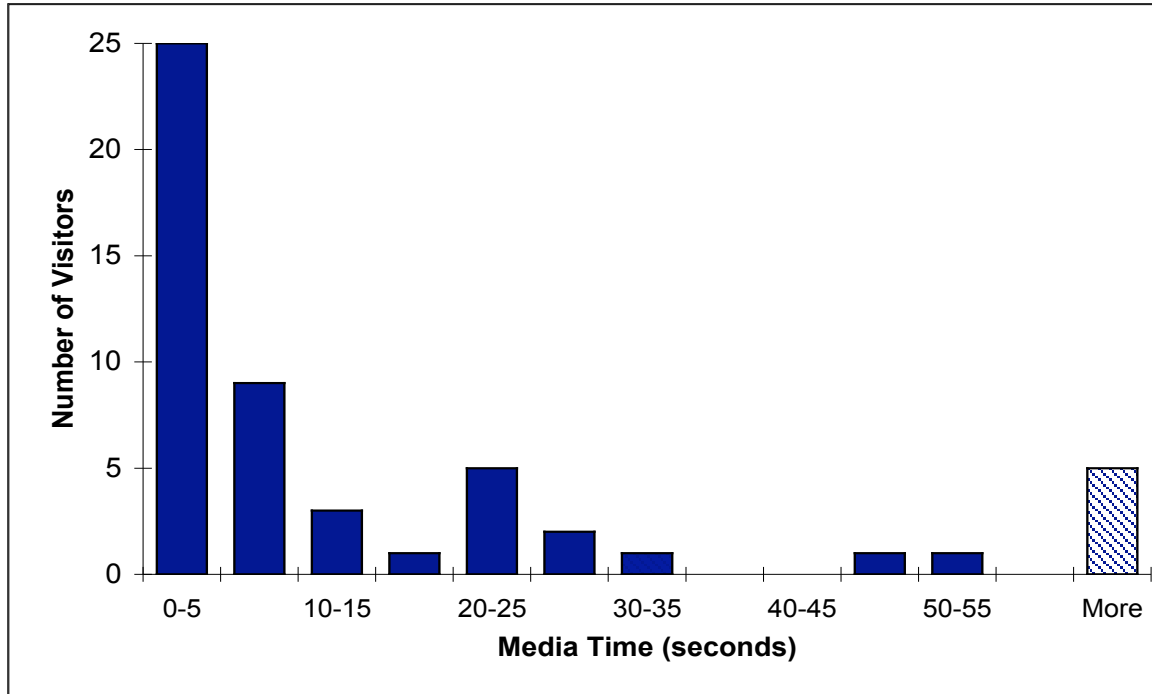
- Figure 5 shows the histogram of how long visitors looked at the media piece for the physically non-integrated layout.

Figure 5. Histogram of the time spent looking at media for the physically non-integrated layout. N=54. Mean = 28 seconds. Median = 11 seconds. Maximum time =136 seconds.



- Figure 6 shows the histogram of how long visitors looked at the media piece for the physically integrated layout.

Figure 6. Histogram of the time spent looking at media for the physically integrated layout. N=53. Mean = 18 seconds. Median = 5 seconds. Maximum time =153 seconds.



- There is no significant difference between the physically integrated and the physically non-integrated layouts¹; $t(76) = -1.804$, $p = .075 > .05$.

Was there a difference in the size of the group that stopped?

We were curious to see if the new, integrated configuration attracted more single users than multi-users. We found:

- no significant difference between the physically integrated and the physically non-integrated layout; Fisher's Exact Test, $p=.238 > .05$

	Single User	Multi-user	Total
Not Physically Integrated	19	34	53 ¹
Physically Integrated	26	27	53

¹ We did not note the group size in one of the observations.

SUMMARY

There was no significant difference in:

- Holding time
- Number of visitors who looked at the media piece
- Time visitors spent looking at the media, or
- The size of the group (single versus multi-user)

between the two physical layouts.

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