

# Usability of WCAG 2 Success Criteria

## Abstract

We conducted an online survey of people who are familiar with WCAG 2 to gather perspectives on the usability of Level A and AA Success Criteria of WCAG 2. We divided usability into three components—learnability, memorability and teachability. We asked survey respondents to rate each success criterion for each component, by asking them a binary question—is this success criteria easy to learn, remember or teach others? We also asked respondents to give us explanations for their rating for each SC.

We received 148 complete responses, and identified the following key findings.

# Introduction

This document attempts to turn the WCAG 2 SC Usability survey responses into meaningful data on **which SCs are hardest to learn, remember and teach**.

## Methodology

In this work, our focus was on gathering overall perceptions of usability, rather than a more nuanced . We used an online survey to gather data.

For each component of usability—learnability, memorability and teachability—we asked participants to identify which SCs are, in their opinion, easy to learn, easy to remember and easy to teach others. For each category of usability, this was done by a simple checkbox list of SCs. If the participant considered an SC easy to learn/remember/teach, they checked the checkbox for that SC. We then counted the number of checks for each SC, for each category of usability.

We then asked participants for comments relating to the learnability, memorability and teachability of each SC. So these comments can be treated as evidence explaining why a participant might think an SC easy or difficult to use.

The target audience was people who had some familiarity with WCAG, so the survey was distributed by email invitations to WAI-IG discussion forum and other online forums for accessibility and UX.

## Data Analysis

We received 216 responses, of which 148 were complete responses. We removed the incomplete responses from the data used for analysis.

For each of the three categories of usability (learnability, memorability, teachability), we rank the SCs in order of number of participants that identified them as easy.

For an **overall measure of SC usability**, we use the average ranking of each SC.

We also compared different groups of participants, based on:

1. Years of experience in accessibility: Those who reported 11 or more years of experience, and those who reported 10 or less.
2. Level of involvement of accessibility in role: Those who reported that their role focused on accessibility, and those who reported that their role focused only partially on accessibility.

Other possible comparisons could be in job, or geographic area, or language.

## Limitations

This is an online survey, so participants self-report opinion and perception. It does not attempt to objectively measure usability through observation of use of SCs.

There may be bias in responses based on the sample of population who completed it, although our inclusion criteria was anyone who had experience of using WCAG in their work.

We plan to run similar surveys in French, Spanish, Brazilian Portuguese, Japanese and Korean.

# Findings

Which SCs do participants find easy to learn?

## Learnability—all participants

Rank (easiest to hardest)	SC	% of participants	Number of participants
1	1.4.1 Use of Color	84.96%	113
2	3.1.1 Language of Page	83.46%	111
3	1.4.3 Contrast (Minimum)	82.71%	110
3	2.4.2 Page Titled	82.71%	110
5	1.4.5 Images of Text	78.20%	104
6	1.1.1 Non-Text Content	76.69%	102
7	2.1.1 Keyboard	74.44%	99
7	2.4.7 Focus Visible	74.44%	99
9	3.1.2 Language of Parts	68.42%	91
10	2.1.2 No Keyboard Trap	66.17%	88
10	2.4.6 Headings and Labels	66.17%	88
12	3.2.3 Consistent Navigation	65.41%	87
13	2.4.3 Focus Order	64.66%	86
14	2.4.4 Link Purpose (In Context)	63.91%	85
15	1.2.2 Captions (Prerecorded)	62.41%	83
16	1.4.4 Resize text	61.65%	82
17	3.3.2 Labels or Instructions	60.90%	81
18	2.3.1 Three Flashes or Below Threshold	59.40%	79
19	2.2.2 Pause, Stop, Hide	55.64%	74

20	1.3.2 Meaningful Sequence	54.14%	72
21	2.4.1 Bypass Blocks	53.38%	71
22	1.4.2 Audio Control	49.62%	66
23	3.3.1 Error Identification	48.87%	65
24	1.2.4 Captions (Live)	48.12%	64
25	3.2.4 Consistent Identification	47.37%	63
25	2.2.1 Timing Adjustable	47.37%	63
27	3.2.1 On Focus	46.62%	62
28	1.3.1 Info and Relationships	44.36%	59
28	1.2.1 Audio-only and Video-only (Prerecorded)	44.36%	59
30	3.3.3 Error Suggestion	42.11%	56
31	1.2.3 Audio Description or Media Alternative (Prerecorded)	39.85%	53
32	2.4.5 Multiple Ways	39.10%	52
33	3.2.2 On Input	38.35%	51
33	1.2.5 Audio Description (Prerecorded)	38.35%	51
35	1.3.3 Sensory Characteristics	37.59%	50
36	4.1.1 Parsing	32.33%	43
37	4.1.2 Name, Role, Value	31.58%	42
38	3.3.4 Error Prevention (Legal, Financial, Data)	30.83%	41

Total Respondents: 133

## Memorability—all participants

Which SCs do you find easy to remember?

Rank (easiest to hardest)	SC	% of participants	Number of participants
1	1.1.1 Non-Text Content	78.79%	104
2	2.1.1 Keyboard	78.03%	103
2	1.4.3 Contrast (Minimum)	78.03%	103
4	1.4.1 Use of Color	77.27%	102
5	2.4.2 Page Titled	71.97%	95
6	3.1.1 Language of Page	69.70%	92
7	2.4.6 Headings and Labels	67.42%	89
8	2.4.7 Focus Visible	66.67%	88
8	2.4.3 Focus Order	66.67%	88
8	1.4.5 Images of Text	66.67%	88
11	1.4.4 Resize text	64.39%	85
12	2.1.2 No Keyboard Trap	59.85%	79
13	2.4.4 Link Purpose (In Context)	59.09%	78
14	1.2.2 Captions (Prerecorded)	58.33%	77
15	3.1.2 Language of Parts	54.55%	72
16	1.3.2 Meaningful Sequence	53.03%	70
17	3.2.3 Consistent Navigation	50.76%	67
18	3.3.2 Labels or Instructions	49.24%	65
19	1.3.1 Info and Relationships	43.18%	57
20	2.3.1 Three Flashes or Below Threshold	42.42%	56
21	3.3.1 Error Identification	41.67%	55

21	2.4.1 Bypass Blocks	41.67%	55
23	2.2.2 Pause, Stop, Hide	40.15%	53
23	1.2.4 Captions (Live)	40.15%	53
25	1.2.1 Audio-only and Video-only (Prerecorded)	38.64%	51
25	1.2.3 Audio Description or Media Alternative (Prerecorded)	38.64%	51
27	3.2.1 On Focus	37.88%	50
28	4.1.2 Name, Role, Value	35.61%	47
29	1.2.5 Audio Description (Prerecorded)	34.09%	45
30	4.1.1 Parsing	33.33%	44
31	1.4.2 Audio Control	31.82%	42
31	2.2.1 Timing Adjustable	31.82%	42
31	3.3.3 Error Suggestion	31.82%	42
34	1.3.3 Sensory Characteristics	31.06%	41
34	2.4.5 Multiple Ways	31.06%	41
34	3.2.4 Consistent Identification	31.06%	41
37	3.2.2 On Input	30.30%	40
38	3.3.4 Error Prevention (Legal, Financial, Data)	18.94%	25

Total Respondents: 132

## Teachability—all participants

Which SC do you find easy to teach others?

Rank (easiest to hardest)	SC	% of participants	Number of participants
1	1.4.3 Contrast (Minimum)	78.91%	101
2	1.4.1 Use of Color	78.13%	100
3	2.4.2 Page Titled	75.78%	97
4	1.1.1 Non-Text Content	67.97%	87
4	3.1.1 Language of Page	67.97%	87
6	2.1.1 Keyboard	66.41%	85
7	1.4.5 Images of Text	64.06%	82
8	2.4.6 Headings and Labels	57.03%	73
8	2.4.7 Focus Visible	57.03%	73
10	1.2.2 Captions (Prerecorded)	54.69%	70
10	1.4.4 Resize text	54.69%	70
12	2.4.4 Link Purpose (In Context)	49.22%	63
13	3.1.2 Language of Parts	48.44%	62
14	2.4.3 Focus Order	47.66%	61
15	2.1.2 No Keyboard Trap	46.09%	59
16	1.3.2 Meaningful Sequence	42.97%	55
16	3.3.2 Labels or Instructions	42.97%	55
16	3.2.3 Consistent Navigation	42.97%	55
19	2.4.1 Bypass Blocks	39.84%	51
20	2.2.2 Pause, Stop, Hide	39.06%	50
21	2.3.1 Three Flashes or Below Threshold	38.28%	49
22	1.2.1 Audio-only and Video-only	32.03%	41

	(Prerecorded)		
23	3.3.1 Error Identification	31.25%	40
23	1.2.4 Captions (Live)	31.25%	40
25	1.4.2 Audio Control	28.91%	37
25	3.2.1 On Focus	28.91%	37
27	1.3.1 Info and Relationships	28.13%	36
28	1.3.3 Sensory Characteristics	26.56%	34
28	2.4.5 Multiple Ways	26.56%	34
28	1.2.3 Audio Description or Media Alternative (Prerecorded)	26.56%	34
31	3.3.3 Error Suggestion	25.78%	33
32	3.2.4 Consistent Identification	25.00%	32
32	1.2.5 Audio Description (Prerecorded)	25.00%	32
32	2.2.1 Timing Adjustable	25.00%	32
35	3.2.2 On Input	21.88%	28
35	4.1.2 Name, Role, Value	21.88%	28
37	4.1.1 Parsing	19.53%	25
38	3.3.4 Error Prevention (Legal, Financial, Data)	17.19%	22

Total Respondents: 128

## Comparing participant groups

We segmented and compared the responses of different participant groups, to see if there might be differences in responses. Here are the results of two comparisons, based on:

- Years of experience in accessibility
- Level of involvement of accessibility in current role

### Years of experience in accessibility

We separated survey responses from participants who reported they had 11-15 years or 15+ years of experience in accessibility, and participants who reported they had 10 years or fewer of experience.

We might expect a correlation between years' experience and knowledge of accessibility that means SCs are considered more usable. But there is also a potentially interesting assumption to make based on experience of WCAG 1. We chose the split between more and less experienced groups on the assumption that participants who had 11 years or more experience would have been working with WCAG 1, whereas those with 10 years or fewer would have started to work with accessibility in 2007-08, around the time WCAG 2 was published. While this division of participants may not be exact in terms of familiarity with and influence of WCAG 1, it gives us some potential insight into the influence of WCAG 1 on perceptions of usability on WCAG 2.

### Comparing Learnability

#### 5 most learnable SCs

Rank	11 years or more experience	10 years or fewer
1	2.4.2 Page Titled	1.4.1 Use of Color
2	1.4.1 Use of Color	1.4.3 Contrast (Minimum)
3	3.1.1 Language of Page	3.1.1 Language of Page
4	1.1.1 Non-Text Content	2.4.2 Page Titled
5	1.4.3 Contrast (Minimum)	1.4.5 Images of Text

#### 5 least learnable SCs (least learnable first)

Rank	11 years or more experience	10 years or fewer
1	3.3.4 Error Prevention (Legal, Financial, Data)	4.1.1 Parsing
2	1.3.3 Sensory Characteristics	4.1.2 Name, Role, Value
3	4.1.2 Name, Role, Value	3.3.4 Error Prevention (Legal, Financial, Data)
4	3.2.2 On Input	1.2.5 Audio Description (Prerecorded)
5	4.1.1 Parsing	1.2.3 Audio Description or Media Alternative (Prerecorded)

Mean

## Comparing Memorability

### 5 most memorable SCs

Rank	11 years or more experience	10 years or fewer
1	1.1.1 Non-Text Content	2.1.1 Keyboard
2	1.4.3 Contrast (Minimum)	1.4.1 Use of Color
3	1.4.1 Use of Color	1.4.3 Contrast (Minimum)
4	2.1.1 Keyboard	1.1.1 Non-Text Content
5	3.1.1 Language of Page	2.4.2 Page Titled

### 5 least memorable SCs (least learnable first)

Rank	11 years or more experience	10 years or fewer
1	3.3.4 Error Prevention (Legal, Financial, Data)	3.3.4 Error Prevention (Legal, Financial, Data)
2	3.2.2 On Input	4.1.1 Parsing
3	2.4.5 Multiple Ways	3.2.4 Consistent Identification
4	1.3.3 Sensory Characteristics	2.2.1 Timing Adjustable

5	3.3.3 Error Suggestion	1.4.2 Audio Control
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## Comparing Teachability

### 5 most teachable SCs

Rank	11 years or more experience	10 years or fewer
1	1.4.1 Use of Color	1.4.3 Contrast (Minimum)
2	1.4.3 Contrast (Minimum)	1.4.1 Use of Color
3	1.1.1 Non-Text Content	2.4.2 Page Titled
4	2.1.1 Keyboard	1.1.1 Non-Text Content
5	2.4.2 Page Titled	3.1.1 Language of Page

### 5 least teachable SCs (least learnable first)

Rank	11 years or more experience	10 years or fewer
1	3.3.4 Error Prevention (Legal, Financial, Data)	3.3.4 Error Prevention (Legal, Financial, Data)
2	4.1.1 Parsing	4.1.2 Name, Role, Value
3	3.2.4 Consistent Identification	4.1.1 Parsing
4	3.2.2 On Input	3.2.2 On Input
5	1.2.5 Audio Description (Prerecorded)	2.2.1 Timing Adjustable

## Learnability—11 years or more

1	2.4.2 Page Titled	82.69	43
2	1.4.1 Use of Color	80.77	42
3	3.1.1 Language of Page	80.77	42
4	1.1.1 Non-Text Content	76.92	40

5	1.4.3 Contrast (Minimum)	76.92	40
6	2.1.1 Keyboard	75	39
7	1.4.5 Images of Text	73.08	38
8	1.2.2 Captions (Prerecorded)	69.23	36
9	2.1.2 No Keyboard Trap	67.31	35
10	2.2.2 Pause, Stop, Hide	67.31	35
11	2.4.6 Headings and Labels	67.31	35
12	2.4.7 Focus Visible	67.31	35
13	3.2.3 Consistent Navigation	67.31	35
14	2.4.3 Focus Order	65.38	34
15	3.1.2 Language of Parts	65.38	34
16	3.3.2 Labels or Instructions	65.38	34
17	1.4.4 Resize text	59.62	31
18	2.3.1 Three Flashes or Below Threshold	59.62	31
19	1.3.2 Meaningful Sequence	57.69	30
20	1.4.2 Audio Control	57.69	30
21	2.4.4 Link Purpose (In Context)	57.69	30
22	2.4.1 Bypass Blocks	55.77	29
23	1.2.1 Audio-only and Video-only (Prerecorded)	51.92	27
24	1.2.4 Captions (Live)	51.92	27
25	2.2.1 Timing Adjustable	51.92	27
26	3.3.1 Error Identification	50	26
27	1.2.3 Audio Description or Media Alternative (Prerecorded)	48.08	25
28	1.3.1 Info and Relationships	48.08	25
29	3.2.1 On Focus	48.08	25
30	3.3.3 Error Suggestion	48.08	25

31	1.2.5 Audio Description (Prerecorded)	44.23	23
32	2.4.5 Multiple Ways	44.23	23
33	3.2.4 Consistent Identification	44.23	23
34	4.1.1 Parsing	44.23	23
35	3.2.2 On Input	40.38	21
36	4.1.2 Name, Role, Value	40.38	21
37	1.3.3 Sensory Characteristics	38.46	20
38	3.3.4 Error Prevention (Legal, Financial, Data)	34.62	18

## Learnability—10 years or fewer

1	1.4.1 Use of Color	87.8	72
2	1.4.3 Contrast (Minimum)	86.59	71
3	3.1.1 Language of Page	85.37	70
4	2.4.2 Page Titled	82.93	68
5	1.4.5 Images of Text	81.71	67
6	2.4.7 Focus Visible	79.27	65
7	1.1.1 Non-Text Content	76.83	63
8	2.1.1 Keyboard	74.39	61
9	3.1.2 Language of Parts	70.73	58
10	2.4.4 Link Purpose (In Context)	68.29	56
11	2.1.2 No Keyboard Trap	65.85	54
12	2.4.6 Headings and Labels	65.85	54
13	2.4.3 Focus Order	64.63	53
14	3.2.3 Consistent Navigation	64.63	53
15	1.4.4 Resize text	63.41	52
16	2.3.1 Three Flashes or Below Threshold	59.76	49

17	1.2.2 Captions (Prerecorded)	58.54	48
18	3.3.2 Labels or Instructions	58.54	48
19	1.3.2 Meaningful Sequence	52.44	43
20	2.4.1 Bypass Blocks	51.22	42
21	3.2.4 Consistent Identification	50	41
22	2.2.2 Pause, Stop, Hide	48.78	40
23	3.3.1 Error Identification	48.78	40
24	3.2.1 On Focus	46.34	38
25	1.2.4 Captions (Live)	45.12	37
26	1.4.2 Audio Control	45.12	37
27	2.2.1 Timing Adjustable	43.9	36
28	1.3.1 Info and Relationships	41.46	34
29	1.2.1 Audio-only and Video-only (Prerecorded)	40.24	33
30	3.3.3 Error Suggestion	39.02	32
31	3.2.2 On Input	37.8	31
32	1.3.3 Sensory Characteristics	36.59	30
33	2.4.5 Multiple Ways	36.59	30
34	1.2.3 Audio Description or Media Alternative (Prerecorded)	34.15	28
35	1.2.5 Audio Description (Prerecorded)	34.15	28
36	3.3.4 Error Prevention (Legal, Financial, Data)	28.05	23
37	4.1.2 Name, Role, Value	26.83	22
38	4.1.1 Parsing	24.39	20

## Memorability—11 years or more

1	1.1.1 Non-Text Content	80.39	41
2	1.4.3 Contrast (Minimum)	76.47	39
3	1.4.1 Use of Color	74.51	38
4	2.1.1 Keyboard	74.51	38
5	3.1.1 Language of Page	72.55	37
6	2.4.2 Page Titled	70.59	36
7	1.4.4 Resize text	66.67	34
8	2.4.6 Headings and Labels	66.67	34
9	1.2.2 Captions (Prerecorded)	64.71	33
10	1.4.5 Images of Text	64.71	33
11	2.4.4 Link Purpose (In Context)	62.75	32
12	2.4.3 Focus Order	60.78	31
13	2.4.7 Focus Visible	60.78	31
14	2.1.2 No Keyboard Trap	58.82	30
15	1.3.2 Meaningful Sequence	56.86	29
16	3.1.2 Language of Parts	56.86	29
17	3.2.3 Consistent Navigation	56.86	29
18	1.3.1 Info and Relationships	54.90	28
19	1.2.1 Audio-only and Video-only (Prerecorded)	49.02	25
20	1.2.4 Captions (Live)	47.06	24
21	2.4.1 Bypass Blocks	45.10	23
22	1.2.3 Audio Description or Media Alternative (Prerecorded)	43.14	22
23	2.2.2 Pause, Stop, Hide	43.14	22
24	3.3.1 Error Identification	41.18	21
25	3.3.2 Labels or Instructions	41.18	21
26	4.1.1 Parsing	41.18	21

27	4.1.2 Name, Role, Value	41.18	21
28	1.2.5 Audio Description (Prerecorded)	39.22	20
29	2.3.1 Three Flashes or Below Threshold	39.22	20
30	1.4.2 Audio Control	37.25	19
31	2.2.1 Timing Adjustable	37.25	19
32	3.2.1 On Focus	37.25	19
33	3.2.4 Consistent Identification	35.29	18
34	3.3.3 Error Suggestion	35.29	18
35	1.3.3 Sensory Characteristics	31.37	16
36	2.4.5 Multiple Ways	31.37	16
37	3.2.2 On Input	25.49	13
38	3.3.4 Error Prevention (Legal, Financial, Data)	23.53	12

## Memorability—10 years or less

1	2.1.1 Keyboard	80.49	66
2	1.4.1 Use of Color	79.27	65
3	1.4.3 Contrast (Minimum)	79.27	65
4	1.1.1 Non-Text Content	76.83	63
5	2.4.2 Page Titled	73.17	60
6	2.4.3 Focus Order	70.73	58
7	2.4.7 Focus Visible	70.73	58
8	1.4.5 Images of Text	68.29	56
9	2.4.6 Headings and Labels	68.29	56
10	3.1.1 Language of Page	67.07	55

11	1.4.4 Resize text	63.41	52
12	2.1.2 No Keyboard Trap	59.76	49
13	2.4.4 Link Purpose (In Context)	57.32	47
14	1.2.2 Captions (Prerecorded)	54.88	45
15	3.3.2 Labels or Instructions	53.66	44
16	3.1.2 Language of Parts	52.44	43
17	1.3.2 Meaningful Sequence	50	41
18	3.2.3 Consistent Navigation	47.56	39
19	2.3.1 Three Flashes or Below Threshold	43.9	36
20	3.3.1 Error Identification	41.46	34
21	2.4.1 Bypass Blocks	39.02	32
22	3.2.1 On Focus	39.02	32
23	2.2.2 Pause, Stop, Hide	37.8	31
24	1.2.3 Audio Description or Media Alternative (Prerecorded)	35.37	29
25	1.2.4 Captions (Live)	35.37	29
26	1.3.1 Info and Relationships	35.37	29
27	3.2.2 On Input	32.93	27
28	1.2.1 Audio-only and Video-only (Prerecorded)	31.71	26
29	4.1.2 Name, Role, Value	31.71	26
30	1.2.5 Audio Description (Prerecorded)	30.49	25
31	1.3.3 Sensory Characteristics	30.49	25
32	2.4.5 Multiple Ways	30.49	25
33	3.3.3 Error Suggestion	29.27	24
34	1.4.2 Audio Control	28.05	23
35	2.2.1 Timing Adjustable	28.05	23
36	3.2.4 Consistent Identification	28.05	23

37	4.1.1 Parsing	28.05	23
38	3.3.4 Error Prevention (Legal, Financial, Data)	15.85	13

## Teachability—11 years or more

1	1.4.1 Use of Color	79.59	39
2	1.4.3 Contrast (Minimum)	77.55	38
3	1.1.1 Non-Text Content	73.47	36
4	2.1.1 Keyboard	73.47	36
5	2.4.2 Page Titled	73.47	36
6	3.1.1 Language of Page	71.43	35
7	1.4.5 Images of Text	69.39	34
8	1.2.2 Captions (Prerecorded)	63.27	31
9	2.1.2 No Keyboard Trap	59.18	29
10	2.4.6 Headings and Labels	59.18	29
11	1.4.4 Resize text	57.14	28
12	1.3.2 Meaningful Sequence	55.10	27
13	3.2.3 Consistent Navigation	55.10	27
14	2.4.7 Focus Visible	53.06	26
15	3.3.2 Labels or Instructions	53.06	26
16	2.2.2 Pause, Stop, Hide	46.94	23
17	2.4.3 Focus Order	46.94	23
18	2.4.4 Link Purpose (In Context)	46.94	23
19	3.1.2 Language of Parts	46.94	23
20	2.3.1 Three Flashes or Below Threshold	38.78	19
21	3.3.1 Error Identification	38.78	19

22	1.2.4 Captions (Live)	36.73	18
23	1.3.1 Info and Relationships	36.73	18
24	1.4.2 Audio Control	36.73	18
25	1.2.1 Audio-only and Video-only (Prerecorded)	34.69	17
26	2.4.1 Bypass Blocks	34.69	17
27	1.2.3 Audio Description or Media Alternative (Prerecorded)	32.65	16
28	2.2.1 Timing Adjustable	32.65	16
29	1.3.3 Sensory Characteristics	30.61	15
30	2.4.5 Multiple Ways	30.61	15
31	3.2.1 On Focus	30.61	15
32	3.3.3 Error Suggestion	30.61	15
33	4.1.2 Name, Role, Value	30.61	15
34	1.2.5 Audio Description (Prerecorded)	28.57	14
35	3.2.2 On Input	26.53	13
36	3.2.4 Consistent Identification	24.49	12
37	4.1.1 Parsing	24.49	12
38	3.3.4 Error Prevention (Legal, Financial, Data)	20.41	10

## Teachability—10 years or less

1	1.4.3 Contrast (Minimum)	80.00	64
2	1.4.1 Use of Color	76.25	61
3	2.4.2 Page Titled	76.25	61
4	1.1.1 Non-Text Content	65.00	52
5	3.1.1 Language of Page	65.00	52

6	1.4.5 Images of Text	61.25	49
7	2.1.1 Keyboard	61.25	49
8	2.4.7 Focus Visible	58.75	47
9	2.4.6 Headings and Labels	56.25	45
10	1.4.4 Resize text	53.75	43
11	1.2.2 Captions (Prerecorded)	50.00	40
12	2.4.4 Link Purpose (In Context)	50.00	40
13	3.1.2 Language of Parts	48.75	39
14	2.4.3 Focus Order	47.50	38
15	2.4.1 Bypass Blocks	42.50	34
16	2.1.2 No Keyboard Trap	37.50	30
17	2.3.1 Three Flashes or Below Threshold	37.50	30
18	3.2.3 Consistent Navigation	36.25	29
19	3.3.2 Labels or Instructions	36.25	29
20	1.3.2 Meaningful Sequence	35.00	28
21	2.2.2 Pause, Stop, Hide	33.75	27
22	1.2.1 Audio-only and Video-only (Prerecorded)	30.00	24
23	1.2.4 Captions (Live)	27.50	22
24	3.2.1 On Focus	27.50	22
25	3.3.1 Error Identification	26.25	21
26	3.2.4 Consistent Identification	25.00	20
27	1.3.3 Sensory Characteristics	23.75	19
28	1.4.2 Audio Control	23.75	19
29	2.4.5 Multiple Ways	23.75	19
30	1.2.3 Audio Description or Media Alternative (Prerecorded)	22.50	18
31	1.2.5 Audio Description (Prerecorded)	22.50	18

32	1.3.1 Info and Relationships	22.50	18
33	3.3.3 Error Suggestion	22.50	18
34	2.2.1 Timing Adjustable	20.00	16
35	3.2.2 On Input	18.75	15
36	4.1.1 Parsing	16.25	13
37	4.1.2 Name, Role, Value	16.25	13
38	3.3.4 Error Prevention (Legal, Financial, Data)	15.00	12

## Level of involvement in accessibility

We also segmented participants according to the extent to which accessibility is part of their main current role. We were interested to find out whether people whose job focuses on accessibility in a job leads to different perspectives on SC accessibility compared to people for whom accessibility isn't a 100% focus in their job.

## Comparing Learnability

### 5 most learnable SCs

Rank	Accessibility is main role	Accessibility is partial role
1		
2		
3		
4		
5		

### 5 least learnable SCs (least learnable first)

Rank	Accessibility is main role	Accessibility is partial role
1		
2		
3		
4		
5		

## Comparing Memorability

### 5 most memorable SCs

Rank	Accessibility is main role	Accessibility is partial role
1		
2		

3		
4		
5		

**5 least memorable SCs (least learnable first)**

Rank	Accessibility is main role	Accessibility is partial role
1		
2		
3		
4		
5		

Comparing Teachability

**5 most teachable SCs**

Rank	Accessibility is main role	Accessibility is partial role
1		
2		
3		
4		
5		

**5 least teachable SCs (least learnable first)**

Rank	Accessibility is main role	Accessibility is partial role
1		
2		
3		
4		

5		
---	--	--

## Learnability—main role

1	2.4.2 Page Titled	88.37	76
2	3.1.1 Language of Page	88.37	76
3	1.4.1 Use of Color	84.88	73
4	1.4.3 Contrast (Minimum)	83.72	72
5	2.4.7 Focus Visible	83.72	72
6	1.1.1 Non-Text Content	77.91	67
7	1.4.5 Images of Text	76.74	66
8	2.1.1 Keyboard	76.74	66
9	3.1.2 Language of Parts	75.58	65
10	2.1.2 No Keyboard Trap	73.26	63
11	1.2.2 Captions (Prerecorded)	67.44	58
12	2.4.6 Headings and Labels	67.44	58
13	2.4.3 Focus Order	66.28	57
14	2.4.4 Link Purpose (In Context)	66.28	57
15	3.2.3 Consistent Navigation	65.12	56
16	3.3.2 Labels or Instructions	65.12	56
17	2.2.2 Pause, Stop, Hide	63.95	55
18	2.3.1 Three Flashes or Below Threshold	61.63	53
19	1.4.4 Resize text	58.14	50
20	2.4.1 Bypass Blocks	58.14	50
21	1.2.4 Captions (Live)	56.98	49
22	1.4.2 Audio Control	56.98	49
23	2.2.1 Timing Adjustable	55.81	48
24	1.3.2 Meaningful Sequence	53.49	46

25	3.3.1 Error Identification	53.49	46
26	3.2.4 Consistent Identification	50.00	43
27	1.2.1 Audio-only and Video-only (Prerecorded)	48.84	42
28	3.3.3 Error Suggestion	48.84	42
29	3.2.1 On Focus	46.51	40
30	1.3.1 Info and Relationships	44.19	38
31	1.3.3 Sensory Characteristics	41.86	36
32	2.4.5 Multiple Ways	41.86	36
33	1.2.5 Audio Description (Prerecorded)	40.70	35
34	3.2.2 On Input	40.70	35
35	3.3.4 Error Prevention (Legal, Financial, Data)	40.70	35
36	1.2.3 Audio Description or Media Alternative (Prerecorded)	37.21	32
37	4.1.2 Name, Role, Value	37.21	32
38	4.1.1 Parsing	36.05	31

## **Learnability—partial role**

1	1.4.1 Use of Color	84.78	39
2	1.4.3 Contrast (Minimum)	80.43	37
3	1.4.5 Images of Text	80.43	37
4	1.1.1 Non-Text Content	76.09	35
5	3.1.1 Language of Page	73.91	34
6	2.4.2 Page Titled	71.74	33
7	2.1.1 Keyboard	69.57	32
8	1.4.4 Resize text	67.39	31
9	3.2.3 Consistent Navigation	65.22	30

10	2.4.6 Headings and Labels	63.04	29
11	2.4.3 Focus Order	60.87	28
12	2.4.4 Link Purpose (In Context)	58.70	27
13	1.3.2 Meaningful Sequence	56.52	26
14	2.3.1 Three Flashes or Below Threshold	56.52	26
15	2.4.7 Focus Visible	56.52	26
16	1.2.2 Captions (Prerecorded)	54.35	25
17	3.1.2 Language of Parts	54.35	25
18	3.3.2 Labels or Instructions	54.35	25
19	2.1.2 No Keyboard Trap	52.17	24
20	3.2.1 On Focus	47.83	22
21	1.2.3 Audio Description or Media Alternative (Prerecorded)	43.48	20
22	3.2.4 Consistent Identification	43.48	20
23	1.3.1 Info and Relationships	41.30	19
24	2.2.2 Pause, Stop, Hide	41.30	19
25	2.4.1 Bypass Blocks	41.30	19
26	3.3.1 Error Identification	41.30	19
27	1.2.1 Audio-only and Video-only (Prerecorded)	36.96	17
28	1.4.2 Audio Control	36.96	17
29	2.4.5 Multiple Ways	36.96	17
30	3.2.2 On Input	34.78	16
31	1.2.5 Audio Description (Prerecorded)	32.61	15
32	3.3.3 Error Suggestion	32.61	15
33	1.2.4 Captions (Live)	30.43	14
34	1.3.3 Sensory Characteristics	30.43	14
35	2.2.1 Timing Adjustable	28.26	13

36	4.1.1 Parsing	26.09	12
37	4.1.2 Name, Role, Value	23.91	11
38	3.3.4 Error Prevention (Legal, Financial, Data)	13.04	6

## Memorability — main role

1	2.1.1 Keyboard	88.24	75
2	1.4.3 Contrast (Minimum)	81.18	69
3	1.1.1 Non-Text Content	77.65	66
4	2.4.7 Focus Visible	77.65	66
5	2.4.2 Page Titled	76.47	65
6	1.4.1 Use of Color	75.29	64
7	2.4.3 Focus Order	74.12	63
8	3.1.1 Language of Page	74.12	63
9	1.2.2 Captions (Prerecorded)	71.76	61
10	2.1.2 No Keyboard Trap	70.59	60
11	1.4.5 Images of Text	67.06	57
12	2.4.4 Link Purpose (In Context)	67.06	57
13	2.4.6 Headings and Labels	65.88	56
14	1.4.4 Resize text	63.53	54
15	3.1.2 Language of Parts	62.35	53
16	1.3.2 Meaningful Sequence	55.29	47
17	3.3.2 Labels or Instructions	55.29	47
18	3.3.1 Error Identification	51.76	44
19	3.2.3 Consistent Navigation	50.59	43
20	1.3.1 Info and Relationships	49.41	42

21	2.2.2 Pause, Stop, Hide	48.24	41
22	2.3.1 Three Flashes or Below Threshold	48.24	41
23	1.2.4 Captions (Live)	47.06	40
24	4.1.2 Name, Role, Value	47.06	40
25	2.4.1 Bypass Blocks	45.88	39
26	1.2.1 Audio-only and Video-only (Prerecorded)	44.71	38
27	1.2.3 Audio Description or Media Alternative (Prerecorded)	44.71	38
28	3.2.1 On Focus	44.71	38
29	4.1.1 Parsing	41.18	35
30	3.3.3 Error Suggestion	40.00	34
31	1.2.5 Audio Description (Prerecorded)	38.82	33
32	1.3.3 Sensory Characteristics	38.82	33
33	3.2.4 Consistent Identification	38.82	33
34	1.4.2 Audio Control	37.65	32
35	2.2.1 Timing Adjustable	37.65	32
36	2.4.5 Multiple Ways	37.65	32
37	3.2.2 On Input	35.29	30
38	3.3.4 Error Prevention (Legal, Financial, Data)	27.06	23

## Memorability — partial role

1	1.1.1 Non-Text Content	80.43	37
2	1.4.1 Use of Color	80.43	37
3	1.4.3 Contrast (Minimum)	73.91	34
4	2.4.6 Headings and Labels	71.74	33

5	1.4.4 Resize text	67.39	31
6	1.4.5 Images of Text	65.22	30
7	2.4.2 Page Titled	65.22	30
8	2.1.1 Keyboard	63.04	29
9	3.1.1 Language of Page	63.04	29
10	2.4.3 Focus Order	54.35	25
11	3.2.3 Consistent Navigation	54.35	25
12	1.3.2 Meaningful Sequence	50.00	23
13	2.4.4 Link Purpose (In Context)	47.83	22
14	2.4.7 Focus Visible	47.83	22
15	3.1.2 Language of Parts	41.30	19
16	2.1.2 No Keyboard Trap	39.13	18
17	3.3.2 Labels or Instructions	39.13	18
18	1.2.2 Captions (Prerecorded)	34.78	16
19	2.3.1 Three Flashes or Below Threshold	32.61	15
20	2.4.1 Bypass Blocks	32.61	15
21	1.3.1 Info and Relationships	30.43	14
22	1.2.1 Audio-only and Video-only (Prerecorded)	26.09	12
23	1.2.3 Audio Description or Media Alternative (Prerecorded)	26.09	12
24	1.2.4 Captions (Live)	26.09	12
25	2.2.2 Pause, Stop, Hide	26.09	12
26	3.2.1 On Focus	26.09	12
27	1.2.5 Audio Description (Prerecorded)	23.91	11
28	3.3.1 Error Identification	23.91	11
29	2.2.1 Timing Adjustable	21.74	10
30	1.4.2 Audio Control	19.57	9

31	2.4.5 Multiple Ways	19.57	9
32	3.2.2 On Input	19.57	9
33	4.1.1 Parsing	19.57	9
34	1.3.3 Sensory Characteristics	17.39	8
35	3.2.4 Consistent Identification	17.39	8
36	3.3.3 Error Suggestion	17.39	8
37	4.1.2 Name, Role, Value	15.22	7
38	3.3.4 Error Prevention (Legal, Financial, Data)	4.35	2

## Teachability—main role

1	1.4.3 Contrast (Minimum)	80	68
2	2.4.2 Page Titled	78.82	67
3	1.4.1 Use of Color	76.47	65
4	3.1.1 Language of Page	75.29	64
5	2.1.1 Keyboard	71.76	61
6	1.1.1 Non-Text Content	65.88	56
7	2.4.7 Focus Visible	64.71	55
8	1.2.2 Captions (Prerecorded)	63.53	54
9	1.4.5 Images of Text	60	51
10	2.4.6 Headings and Labels	60	51
11	3.1.2 Language of Parts	60	51
12	2.1.2 No Keyboard Trap	57.65	49
13	2.4.3 Focus Order	52.94	45
14	2.4.4 Link Purpose (In Context)	52.94	45
15	1.4.4 Resize text	51.76	44

16	3.3.2 Labels or Instructions	51.76	44
17	1.3.2 Meaningful Sequence	49.41	42
18	2.2.2 Pause, Stop, Hide	47.06	40
19	3.2.3 Consistent Navigation	47.06	40
20	2.4.1 Bypass Blocks	44.71	38
21	2.3.1 Three Flashes or Below Threshold	41.18	35
22	1.2.1 Audio-only and Video-only (Prerecorded)	38.82	33
23	1.4.2 Audio Control	36.47	31
24	1.2.4 Captions (Live)	35.29	30
25	3.2.4 Consistent Identification	35.29	30
26	3.3.1 Error Identification	35.29	30
27	1.3.3 Sensory Characteristics	34.12	29
28	2.4.5 Multiple Ways	34.12	29
29	3.3.3 Error Suggestion	34.12	29
30	1.3.1 Info and Relationships	32.94	28
31	2.2.1 Timing Adjustable	32.94	28
32	3.2.1 On Focus	32.94	28
33	1.2.3 Audio Description or Media Alternative (Prerecorded)	30.59	26
34	1.2.5 Audio Description (Prerecorded)	27.06	23
35	4.1.2 Name, Role, Value	27.06	23
36	3.2.2 On Input	24.71	21
37	3.3.4 Error Prevention (Legal, Financial, Data)	24.71	21
38	4.1.1 Parsing	24.71	21

## Teachability—partial role

1	1.4.1 Use of Color	78.57	33
2	1.4.3 Contrast (Minimum)	76.19	32
3	1.1.1 Non-Text Content	73.81	31
4	1.4.5 Images of Text	71.43	30
5	2.4.2 Page Titled	69.05	29
6	1.4.4 Resize text	59.52	25
7	2.1.1 Keyboard	54.76	23
8	3.1.1 Language of Page	52.38	22
9	2.4.6 Headings and Labels	50	21
10	2.4.4 Link Purpose (In Context)	42.86	18
11	2.4.7 Focus Visible	40.48	17
12	1.2.2 Captions (Prerecorded)	38.1	16
13	3.2.3 Consistent Navigation	38.1	16
14	2.4.3 Focus Order	35.71	15
15	2.3.1 Three Flashes or Below Threshold	33.33	14
16	1.3.2 Meaningful Sequence	30.95	13
17	2.4.1 Bypass Blocks	28.57	12
18	3.3.2 Labels or Instructions	26.19	11
19	2.2.2 Pause, Stop, Hide	23.81	10
20	3.1.2 Language of Parts	23.81	10
21	3.3.1 Error Identification	23.81	10
22	1.2.4 Captions (Live)	21.43	9
23	1.2.5 Audio Description (Prerecorded)	21.43	9
24	3.2.1 On Focus	21.43	9

25	1.2.1 Audio-only and Video-only (Prerecorded)	19.05	8
26	1.2.3 Audio Description or Media Alternative (Prerecorded)	19.05	8
27	1.3.1 Info and Relationships	19.05	8
28	2.1.2 No Keyboard Trap	19.05	8
29	3.2.2 On Input	16.67	7
30	1.4.2 Audio Control	14.29	6
31	1.3.3 Sensory Characteristics	11.9	5
32	2.4.5 Multiple Ways	11.9	5
33	4.1.2 Name, Role, Value	11.9	5
34	2.2.1 Timing Adjustable	9.52	4
35	3.3.3 Error Suggestion	9.52	4
36	4.1.1 Parsing	9.52	4
37	3.2.4 Consistent Identification	4.76	2
38	3.3.4 Error Prevention (Legal, Financial, Data)	2.38	1

## Comparing measures of usability

Each measure of usability rates how easy an SC supports a specific task. Are SCs equally easy to learn, remember and teach, or are there differences?

A crude comparison of each measure of usability is to compare the value of the median ranked SC's percentage. In other words, if we rank each SC in order, from highest to lowest, the median is the SC halfway down that list. How similar are the median values for each measure of usability?

(Note:, for a list with an even number of items, the median value falls between two values, so it should be calculated as mean of the two items either side the halfway point. For a list of 38 SCs, the median would be the mean of item 19 and 20 in the list. But this is just a quick and crude comparison, so I used the 19th ranked value.)

Measure	19th-ranked SC	Percentage of responses indicating the 19th-ranked SC is easy to learn/remember/teach
Learnability	2.2.2 Pause Stop and Hide	55.64
Memorability	1.3.1 Info and Relationships	43.18
Teachability	2.4.1 Bypass Blocks	39.84

This suggests that **overall perceived usability of SCs decreases from learnability to teachability**—in other words, more people think SCs are easier to learn than to remember or teach.

## Which SCs are most usable overall?

We separated usability into three components, but it might be helpful to explore how SCs rate in terms of overall usability. To get a meaningful overall rating for usability, we can:

- calculate the mean ranking for each SC over the three measures of usability, and
- rank these averages

This suggests that the **most usable SCs** are:

1. SC 1.4.3 Contrast (Minimum)
2. SC 1.4.1 Use of Color
3. SC 1.1.1 Non-Text Content
4. SC 2.4.2 Page Titled
5. SC 3.1.1 Language of Page

The **least usable SCs** are:

1. SC 3.3.4 Error Prevention (Legal, Financial, Data)
2. SC 3.2.2 On Input
3. SC 4.1.1 Parsing
4. SC 4.1.2 Name, Role, Value
5. SC 1.3.3 Sensory Characteristics

Overall rankings:

Ranking	SC	Learnability	Memorability	Teachability	Mean Ranking
1	1.4.3 Contrast (Minimum)	3	2	1	2.00
2	1.4.1 Use of Color	1	4	2	2.33
3=	1.1.1 Non-Text Content	6	1	4	3.67
3=	2.4.2 Page Titled	3	5	3	3.67
5	3.1.1 Language of Page	2	6	4	4.00
6	2.1.1 Keyboard	7	2	6	5.00
7	1.4.5 Images of Text	5	8	7	6.67
8	2.4.7 Focus Visible	7	8	8	7.67
9	2.4.6 Headings and Labels	10	7	8	8.33

10	2.4.3 Focus Order	13	8	14	11.67
11=	1.4.4 Resize text	16	11	10	12.33
11=	2.1.2 No Keyboard Trap	10	12	15	12.33
11=	3.1.2 Language of Parts	9	15	13	12.33
14=	1.2.2 Captions (Prerecorded)	15	14	10	13.00
14=	2.4.4 Link Purpose (In Context)	14	13	12	13.00
16	3.2.3 Consistent Navigation	12	17	16	15.00
17	3.3.2 Labels or Instructions	17	18	16	17.00
18	1.3.2 Meaningful Sequence	20	16	16	17.33
19	2.3.1 Three Flashes or Below Threshold	18	20	21	19.67
20	2.4.1 Bypass Blocks	21	21	19	20.33
21	2.2.2 Pause, Stop, Hide	19	23	20	20.67
22=	3.3.1 Error Identification	23	21	23	22.33
22=	1.2.4 Captions (Live)	24	23	23	23.33
24	1.3.1 Info and Relationships	28	19	27	24.67
25	1.2.1 Audio-only and Video-only (Prerecorded)	28	25	22	25.00
26	1.4.2 Audio Control	22	31	25	26.00
27	3.2.1 On Focus	27	27	25	26.33
28	1.2.3 Audio Description or Media Alternative (Prerecorded)	31	25	28	28.00
29	2.2.1 Timing Adjustable	25	31	32	29.33

30	3.2.4 Consistent Identification	25	34	32	30.33
31	3.3.3 Error Suggestion	30	31	31	30.67
32=	1.2.5 Audio Description (Prerecorded)	33	29	32	31.33
32=	2.4.5 Multiple Ways	32	34	28	31.33
34	1.3.3 Sensory Characteristics	35	34	28	32.33
35	4.1.2 Name, Role, Value	37	28	35	33.33
36	4.1.1 Parsing	36	30	37	34.33
37	3.2.2 On Input	33	37	35	35.00
38	3.3.4 Error Prevention (Legal, Financial, Data)	38	38	38	38.00

## Why did we get the results we did?

- Is an SC's perceived usability rating due to the way it's written, the complexity of the accessibility topic it's trying to address, the amount and quality of supporting informative resources, or some other reason?
- And, importantly for Silver, for the less usable SCs, what can we do to make them more usable?

We don't know without further research, but we do have comments from participants that might give evidence on why some SCs are less easy to use.

Here are collated comments from participants for the 5 SCs ranked least usable:

### SC 3.3.4 Error Prevention (Legal, Financial, Data)

- When there's a problem with errors, it's hard to understand whether to fail 3.3.1, 3.3.3, 3.3.4, or some other accessibility problem such as color alone.
- Guidelines need verbs. e.g. Allow users to confirm and reverse changes to data
- This is a surprisingly forgiving SC, and fairly hard to explain to people. Does checking the box at the bottom of a sign-up form that says "I agree to the terms and conditions" count as a legal commitment?
- Not understood by most. Needs to be simplified or made AAA. The issue is that people don't understand the applicability.
- never possible. SC can be deleted
- 3.3.1
- What I am most missing are ready to use code examples and example variants.
- techniques help with understanding the SC
- What is "Checked" for errors? Is this the same as just using Javascript to check for invalid data or is this an actual check by a server?
- Adding mandatory indicator should be an error prevention technique. Not suggestion technique.
- most experts think this only applies to legal and financial. They don't understand the "data" part.
- So theoretical...
- No clear
- Gets a little complicated to learn and explain
- Easy to understand, remember, teach

### SC 3.2.2 On Input

- I've often seen this SC marked failed because activating a link or a button causes focus to jump. Yet I feel the intent of this SC was form input fields. If memory serves, it comes down to a definition of "input" into a "user interface component" -- what does that mean?

- Guidelines need verbs. e.g. Avoid surprise changes when inputting information
- This one, too.
- Sometimes it is hard to distinguish between a change of content and change of context.
- Some people believe that clicking on something is an "input" and they'd be right except for in this case.
- very difficult. I always have to read it again and honestly I never have understood it. We need more examples. On the other hand, Not all problematic situations that you encounter in reality, are covered by the SC's
- Learnability and memorability fine, but teachability less so; many non-technical content contributors first instinct is always to open a link in a new window. Authoring tools often make this too easy, e.g. by providing a 'open in new window' tick box in the 'insert image' tool without any prompts as to why it's not a good idea!
- What I am most missing are ready to use code examples and example variants.
- It is very hard to make people understand what exactly is and isn't a change of context. I am unsure myself some times. The "if it could cause confusion" clause is relatively vague.
- not clear without technique
- The 4 possible changes of context (moving focus, changing viewport, changing user agent, change in page content) must be more prominent in the SC rather than in the definition of "changes of context" at the bottom of the understanding page.
- This issue often comes up with filter tools (check a checkbox and the page content refreshes) is that enough to fail this SC or not? I presume yes but it needs to be more clear, perhaps have a filter tool as an example.
- Oh my...the fights on this one. The concept of what is really meant here (and that it does not apply to activating a link or a button)...super challenging, even among experts!
- Complicated because I don't know if it's related closely to the assistive technologies
- Gets a little complicated to learn and explain
- I'm often unsure as to when to flag this as an error during testing
- Complex to understand by people even after reading several times

### 4.1.1 Parsing

- Nesting is the hard part.
- Guidelines need verbs. e.g. Avoid validation errors
- not sure what specifically is covered in this. valid code is so broad. is aria-html compatibility covered here?
- Often feels like to technical to explain in 'normal words' to clients
- Never really discuss this with teams. Impact of not meeting SC is too abstract.
- Very few people understand what this means, and I guess that's OK since most don't need to. It should be considered for elimination.
- Often a debated one, whether it should systematically be marked as an issue, or only if it's the root of accessibility issues (eg duplicate IDs, incorrect attributes)

- stupid to ask that id-values are unique. That is the definition of id-values.
- Difficult criteria to learn memorise and teach as it's mainly relevant to developers rather than content contributors... as most websites now built using CMS or frameworks it is most critical in the development of those.
- What I am most missing are ready to use code examples and example variants.
- It would help a lot if the SC came with a list of error messages the W3C HTML validator states when something is a parsing error.
- not clear without technique
- Missing technique for "elements not nested according to spec". Web devs are sometimes confused if they need their website to be completely valid or not and this should be made more clear and direct.
- I feel this one is kind of redundant
- most experts wish this meant valid html. We need a REALLY GOOD and EASY TO USE TOOL that just shows the PARSING errors. Add to that, that many parsing errors are fixed before the page is shown to the user (fixed by the browser). Arguments galore. So, how can it be easy to teach when we fight about it.
- Not sure how useful this criteria is. Seems to always come up as an error but has little affect on the user. Clients I deal with don't understand the reasoning behind this one.
- We need more automated tools to test for this.
- All is easy.
- I often test websites that fail the parsing success criteria, but that failure does not seem to have any impact on assistive technology. How critical is the parsing success criteria? It's hard to know what to suggest to site owners when this criteria is failed but the reality is that it seems to not have a critical effect on the accessibility of the site.
- This one is ambiguous as it specifies "significant" parsing errors will fail. What is considered "significant?" Severity of error, or number of errors? It's rare that I'm able to 100% pass a website for this one and I get client questions about it constantly.

## 4.1.2 Name, Role, Value

- Field labels, link text meaningful, and in many cases info and relationships -- other SC overlap with this one.
- Guidelines need verbs. e.g. Use valid markup
- Makes sense to developers, but confusing to all else.
- I view this as the dumping grounds for anything that's bad in the code that you can't call anywhere else.
- A lot of people get confused what exactly is required in 1.3.1, 2.4.6, 3.3.2, 4.1.2 as they feel these criteria overlap.
- This could be framed in A way that is more impactful. Essentially we want people to use elements / components the way they are supposed to be used and if they do

custom coding there are certain expected behaviours they need to make sure they've put in place.

- The note at the bottom is vital, and everyone confuses this requirement with 1.3.1.
- This would come into play if you made a character counter for a text area box, but not if you didn't associate a form label with a form (unless you used a non-form element and then made it a form using an aria role).
- Often confusable with 1.3.1
- This is the hardest part to learn
- important SC that deals with many issues. Not easy to improve. It might help though if it would not be the last one in the list. When you describe accessibility problems and you follow the order of SC's as a checklist, then your explanation is often spread over several SC's. This technical SC is mostly the basis of a problem so it is difficult that this comes last
- As per 4.1.1, but where a non technical content contributor can add detail, authoring tool needs to support.
- The way this is written is difficult for people to understand, particularly people without a technical background.
- What I am most missing are ready to use code examples and example variants.
- This SC simply encompasses a lot. When I audit websites for WCAG compliance this SC and 1.3.1 almost always have the most findings.
- Properly teaching people about this SC usually means we need to take a HTML select element with a properly associated label and slowly dissect that element into parts that we name "Name", "Role" and "Value". Only after that can we discuss the fact that in most HTML elements this is done "automatically" (as long as you associated labels correctly, etc. etc.) without the developer thinking about it but that if you build interface components yourself that you need to add these yourself. It takes a while before people realize that carousel interfaces and hamburger menu buttons aren't simply "buttons" but need a communicated value as well as they are more like "toggles".
- The developments in and use of HTML5 and ARIA in the delivery of web content adds additional knowledge requirements for a11y practitioners that makes learning, teaching, and applying this criterion difficult.
- This is way too vague and wooly.
- not clear without technique
- This one is really hard to teach, because it's essentially a catchall for custom elements. It's hard to know whether or not the role you've given something is accurate if you're creating something that doesn't really exist in the existing roles. Very important SC. Better examples could be made for this SC to help explain it. I always use a checkbox with a label and explain the three parts (name, role, value). This one is just complex. Understanding Name, Role, Value of complex widgets requires a programming type brain.
- This remains too abstract.
- Some CMS themes have this baked in instead of using semantic HTML.
- The drawer disaster. If I can't include the barrier of accessibility in the previous checkpoints...

- This can sometimes be ambiguous and seems to cross over with a few other guidelines.
- This one involves a lot of checkpoints to check and it is very difficult to teach

### SC 1.3.3 Sensory Characteristics

- Accessibility specialists often think that this SC is about relying on specific senses for perception of content in general. In fact, it's only about instructions that rely on specific senses.
- I don't see this issue very often. This problem somewhat solved itself when we started creating responsive websites. We could no longer say "click the link to the right" because the link would not be "to the right" on smartphones.
- Guidelines need verbs. e.g. Don't make instructions reliant on size, shape, visual location or sound
- Can never remember the details.
- Seems like a catch-all.
- This is REALLY hard to grasp and explain, in part because it's very difficult to find real-world examples of something that would violate the SC.
- For a beginner, it seems that 1.3.1 is broader in sense than 1.4.1. It may cause misunderstandings.
- Sometimes I get confused and lump Use of Color into this unknowingly.
- learnability and memorability fine, teachability more challenging.
- What I am most missing are ready to use code examples and example variants.
- difficult to read.
- This one's a little tricky as well. The concept of sensory characteristics often remains somewhat vague in people's minds, and often confused people I've taught WCAG to.
- This one is often quite contentious because of advances in modern design vis-a-vis what design was like back when 2.0 was first released. It often causes a lot of contention with modern aesthetics like flat design.
- Examples in this one could be better to help explain it.
- Not too bad.
- Easy learnability
- Gets a little complicated to learn and explain
- Easy to understand, remember, teach, but this one seems to be easy for clients to forget.