

# Accessible Web Survey Tools

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# Relevance of Accessibility

- Ability for persons with disabilities to have access comparable to the access available to others.
- Section 508 applies to Federal Internet & Intranet web sites, forms, surveys, and desktop applications.
- Since June 2001, Section 508 of the Rehabilitation Act requires that federal agencies make their electronic & information technology accessible. (per Section 508, 29 U.S.C. ' 794d)

# Overview

- Which Web Survey tools provide accessible content?
- Testing Methodology
- Summary
- Acknowledgements
- Resources

# Which Web Survey Development Tools Generate Accessible Content?

- Microsoft .NET version 3.5
- Illume 4.7.0.46
- Blaise IS 4.8.1.1460
- Hatteras 3.0
- SurveyMonkey (2010)
- Macromedia Homesite 5 & Oracle JDeveloper 10 (H&J)

# Testing Methodology

- Launch IE 7 Browser
- Start the Job Access With Speech (JAWS) 11 screen-reader
- Navigate through the Web survey using only keyboard commands
- Verify conformance with Section 508, particularly
  - 1194.21 C – an on-screen indication of the current focus that moves as input focus changes (VISUAL FOCUS);
  - 1194.21 D – information about the state of an element (e.g. checkbox, radio button);
  - 1194.21 I – color alone cannot be used to convey information;
  - 1194.21 L – all directions and cues for field elements (LABELS);
  - 1194.22 G & H – elements in a table must be associated with column headers (GRIDS).

# MicroSoft .NET version 3.5



# Extraneous & unseen content is vocalized between questions.

This question & status of all previous response options are repeated before each remaining question on this screen.

The screenshot shows a web browser window with the address <https://websurv.indiana.edu/snaap/Respond.aspx/snaap2/79292/2/4/c0d2b705-f4da-410f-bb2a-82fe79f4e083>. The page title is "Strategic National Arts Alumni Project, section 2 page 4 - Microsoft Internet Explorer". The form is titled "Degree Information" and contains the following sections:

- Please select a degree or credential you have pursued.** (This text is highlighted by a red box)
- A list of degree options with radio buttons, including: Certificate, AA, AS, AD, BA, BE, BFA, BM or B Mus, BME, BS, MA, MFA, MM or M Mus, MAEd, MMed, MArch, PhD, EdD, MD or DO, JD, and Other (Please specify): (This list is highlighted by a red box)
- Did you pursue this degree or credential at Test University School of Music?** (Options: Yes, No)
- What is the completion status of this degree?** (Options: Completed, Pursued, but did not complete, Currently enrolled)
- What was your major?** (Text input field)

Two callout boxes are present: a blue one pointing to the degree list and a green one pointing to the completion status options.

Unseen questions are vocalized when navigating.

# The buttons to Edit or Remove Degree information are inaccessible.

Strategic National Arts Alumni Project, section 2 page 4 - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites

Address <https://websurv.indiana.edu/snaap/Respond.aspx/snaap2/79292/2/4/c0d2b705-f4da-410f-bb2a-82fe79f4e083> Go Links »

Now we would like to ask you more specifics about your degrees and credentials. Click the "Add degree information" button below to enter a degree or credential you have pursued. A new window will pop-up so you can tell us where you pursued each degree or credential, whether you completed the degree or credential, and your area (s) of study.

When you are finished entering the degree or credential, a summary of the information will be added to the table. You will be able to add additional degrees or credentials by clicking the "Add degree information" button again.

	Degree or Credential	Name of Institution	Completion Status	Major Area of Study	
1	BS	Test University School of Music	Completed	cowbell	<input type="button" value="Edit"/> <input type="button" value="Remove"/>

Done Internet



# Color alone is incorrectly used to identify missing data items.

Strategic National Arts Alumni Project, section 1 page 1 - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites

Address <https://websurv.indiana.edu/snaap/Respond.aspx?snaap2/79292/1/1/c0d2b705-f4da-410f-bb2a-82fe79f4e083> Go Links »

You are beginning section 1 of 5. Your answers are important to us!

Please answer the highlighted item below.  
Please answer the highlighted item below.  
Please answer the highlighted item below.  
Please answer the highlighted item below.

**Your Professional Life**

In which of the following capacities have you worked since leaving Test University School of Music?

	I do this currently	I have done it in the past but no longer do it	I have not done this
Work in an occupation outside of the arts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work as a professional artist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work as a teacher of the arts (e.g., giving private lessons at a community or arts organization, or in a classroom setting)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work in an arts-related profession (e.g., arts administration, but not as a professional artist or teacher)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Next »

**What do we mean by "the arts"?**

Here and throughout the survey, "the arts" are broadly defined to include visual art, architecture, design, dance, music, theater, film, media, creative writing, and multidisciplinary arts.

**Survey Mechanics**

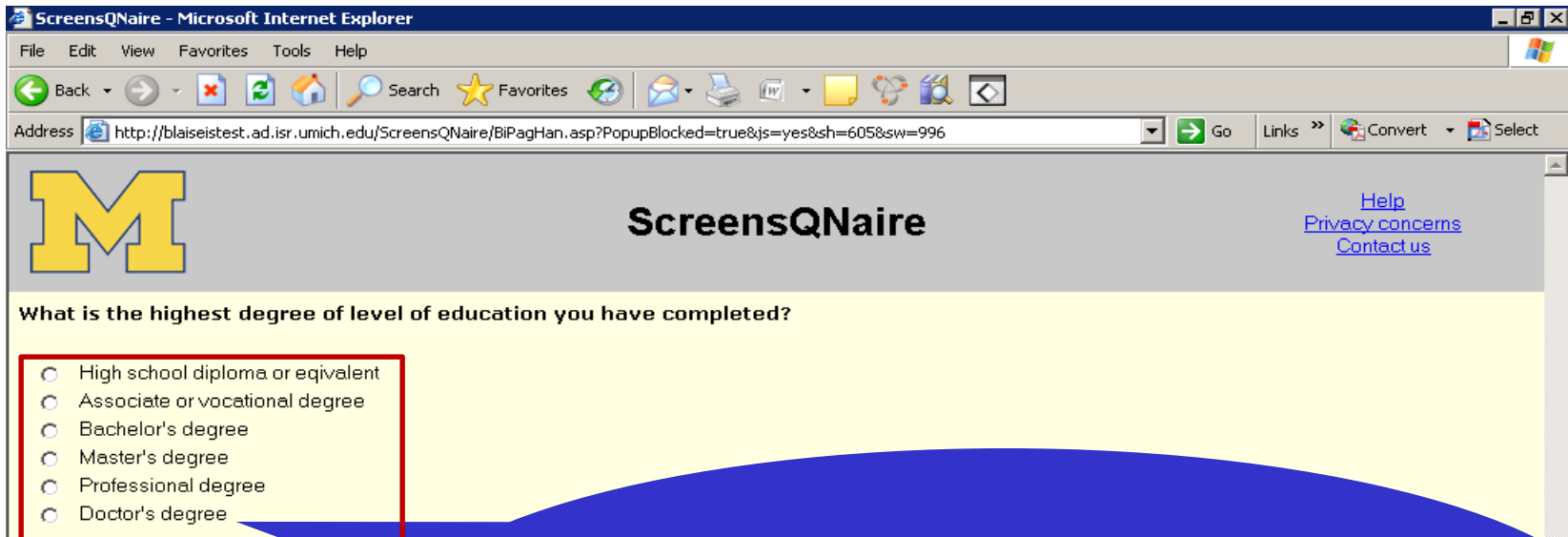
If you need to review a previous answer, you may use your browser's back button or click on the tabs at the top of the page to go to the beginning of a previous section. You cannot use the section tabs to go forward in the survey. If you change a previous answer you may need to answer new questions as a result.

Done Internet

# Blaise IS and Illume



# All Blaise IS labels are vocalized with the word “clickable” and labels with apostrophes do not vocalize correctly.



Doctor and number 39  
semicolon s degree Doctor's  
degree clickable clickable

# DOB fields are not labeled correctly.

Survey - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Mail Stop Taskbar

Address <https://illumetest1.isr.umich.edu/Collector/Survey.ashx> Go Links Convert Select

**M**

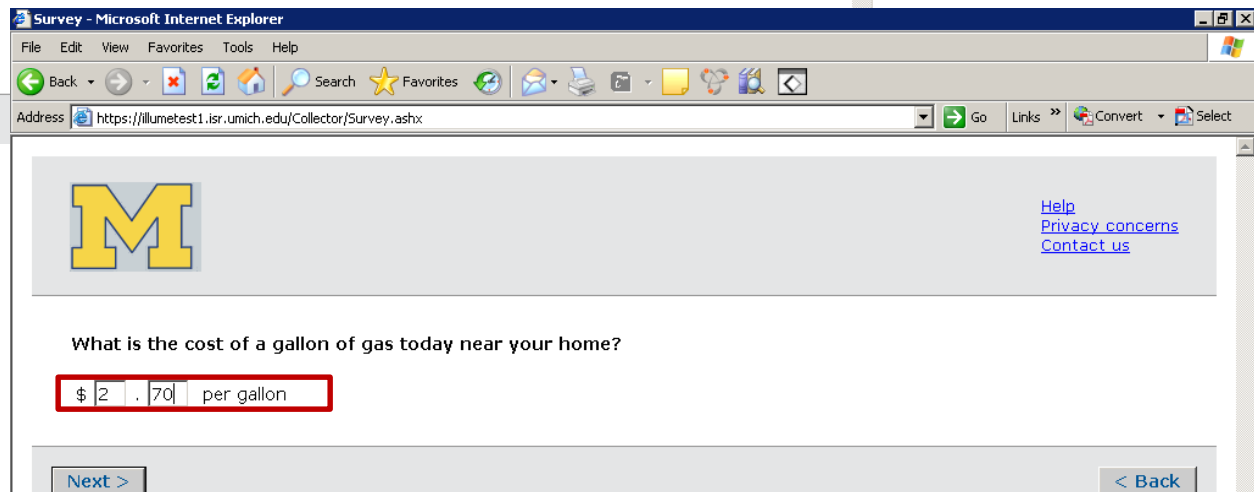
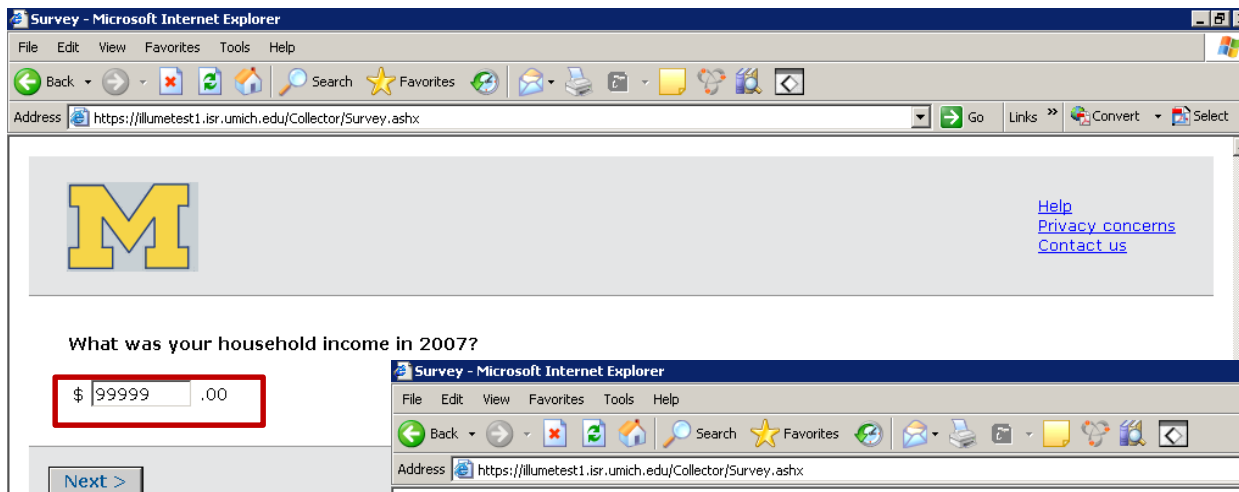
[Help](#)  
[Privacy concerns](#)  
[Contact us](#)

What is your birth date?

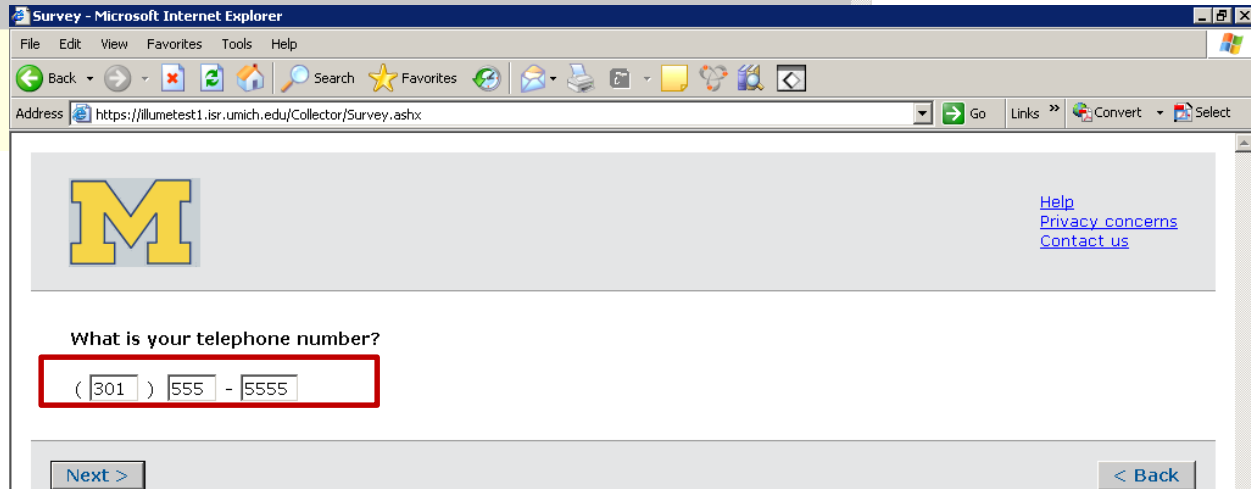
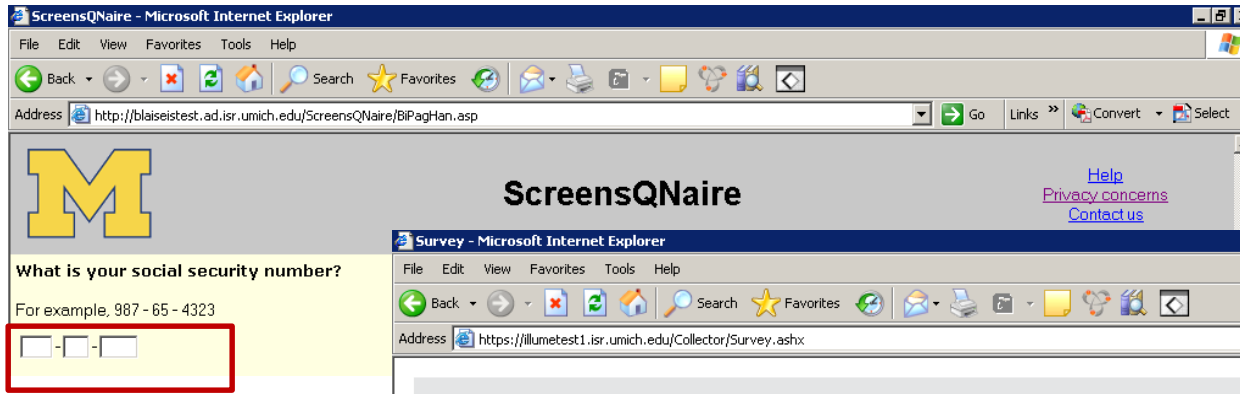
/  /

MM DD YYYY

# JAWS users may have difficulty entering dollars and cents because these fields lack labels.



# JAWS users may enter the entire number into the first field because data entry does not advance to the next field automatically.




# The five radio button options are inaccessible unless the JAWS user knows table commands.

Survey - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://illumetest1.isr.umich.edu/Collector/Survey.ashx>



[Help](#)  
[Privacy concerns](#)  
[Contact us](#)

To what extent do you agree or disagree with the following statements about the READING/LANGUAGE ARTS PROGRAM at this school?

(Select one for EACH.)

	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Applicable
There is real consistency in curriculum, instruction, and learning materials among teachers at this school.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There has been real continuity and focus in the reading/language arts program at this school.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is an adequate supply of textbooks for reading/language arts instruction at this school.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is an adequate supply of trade books for reading/language arts instruction at this school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

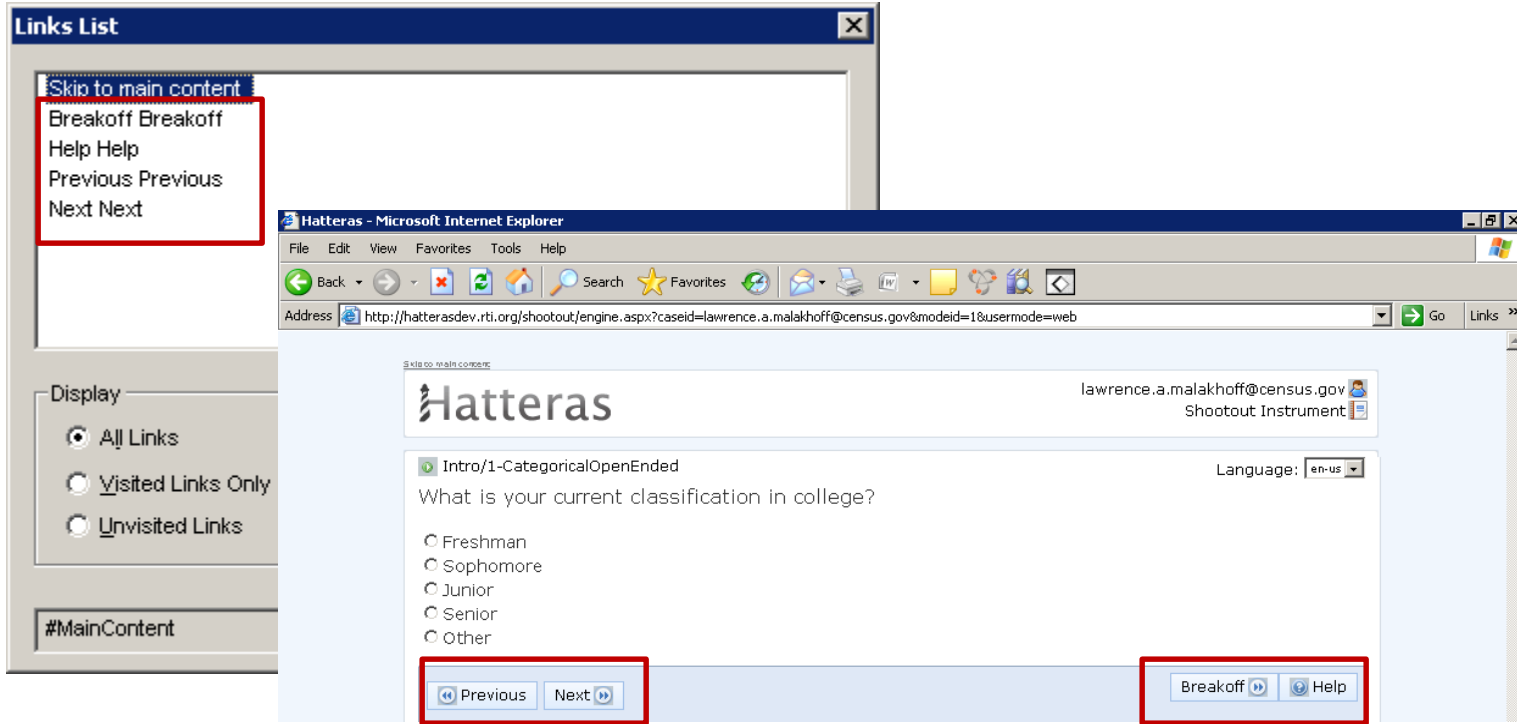
[Next >](#) [< Back](#)

# Hatteras 3.0





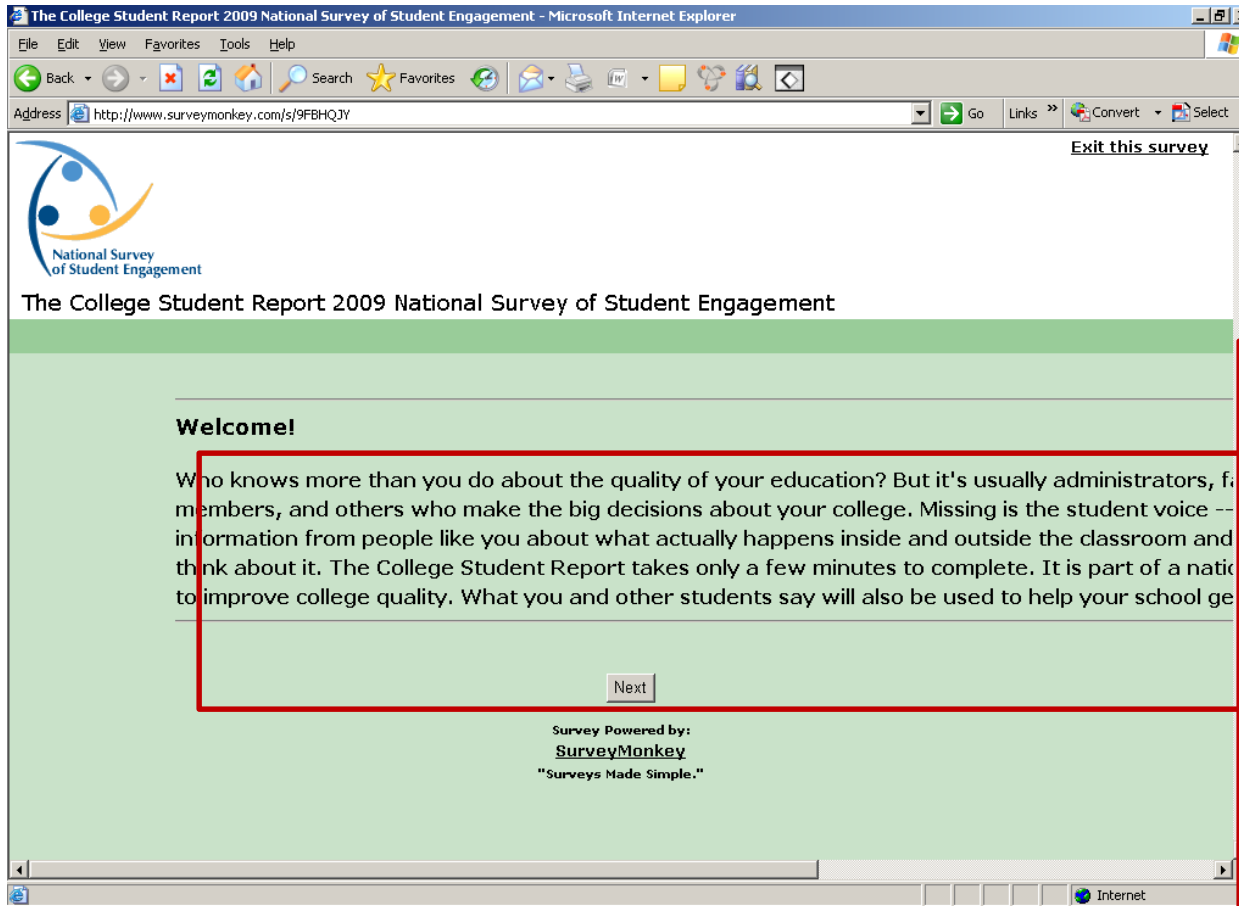
# Button labels are vocalized twice.



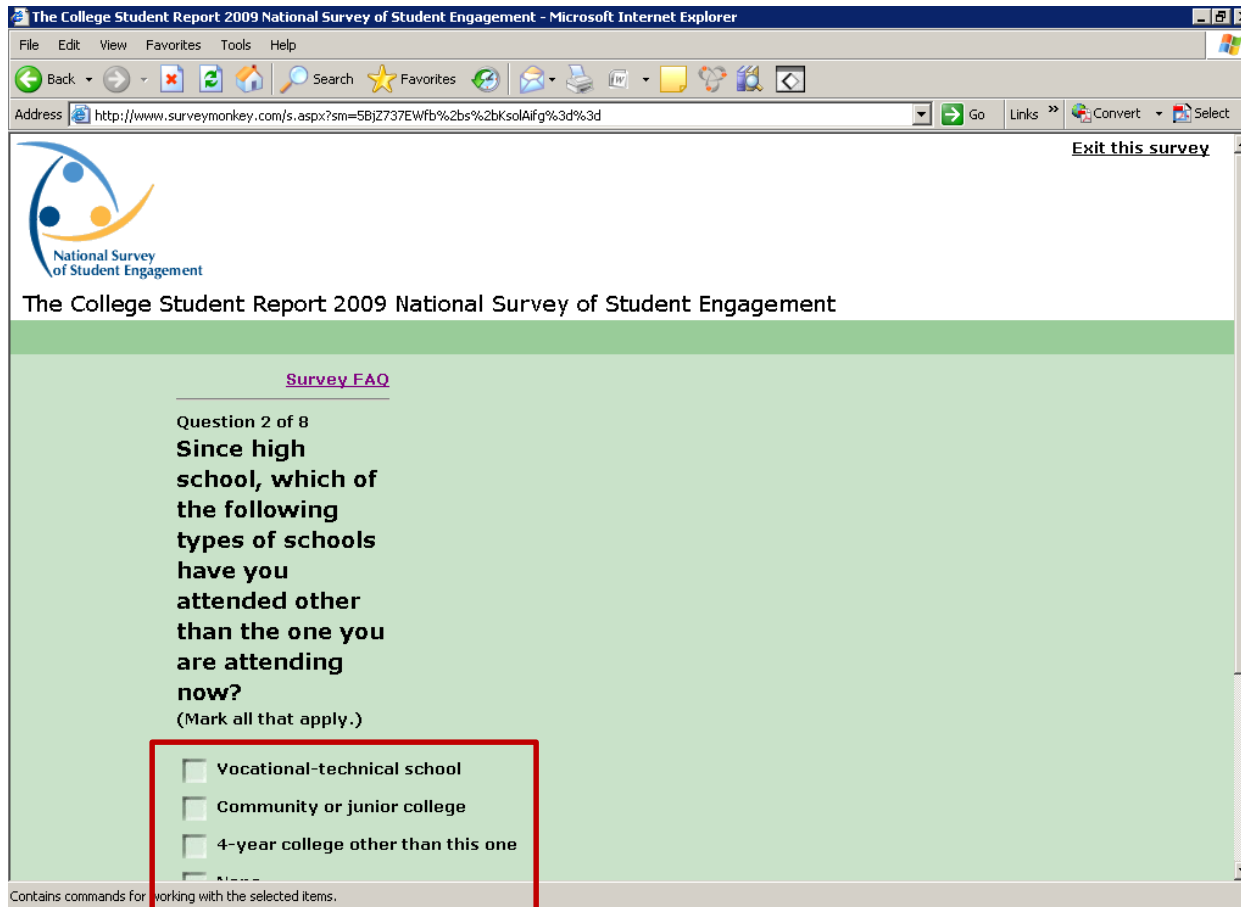
# SurveyMonkey



# This screen is vocalized correctly, but text is truncated to the right and below the fold.



# Users must scroll below the fold to see all responses.




# Presence of a check-mark to show a selection may cause users to try to check more items because of the similarity to check-boxes.

The College Student Report 2009 National Survey of Student Engagement - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <http://www.surveymonkey.com/s.aspx?sm=58jZ737EWfb%2bs%2bksoAifg%3d%3d> Go Links Convert Select

 National Survey of Student Engagement

The College Student Report 2009 National Survey of Student Engagement

[Exit this survey](#)

[Survey FAQ](#)

Question 1 of 8

**What is your current classification in college?**

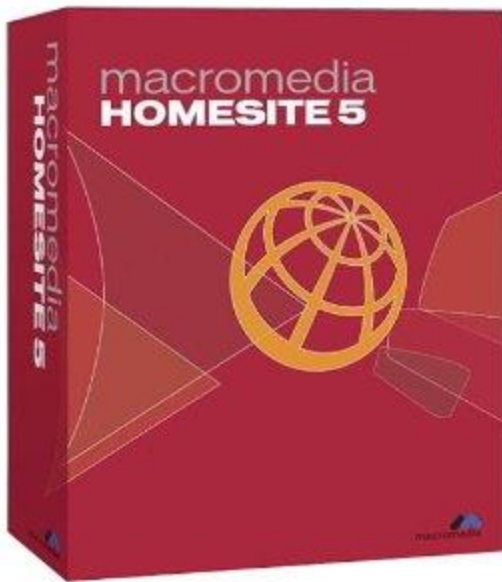
- Freshman/first year
- Sophomore
- Junior
- Senior
- Other (please specify)

Prev Next

Survey Powered by:  
**SurveyMonkey**  
"Surveys Made Simple."

Done Internet

# Macromedia Homesite & ORACLE JDEVELOPER



**ORACLE**  
JDEVELOPER

# H&J implementation is fully accessible, but the Continue button is located before the form fields.

International Price Program - Contact Information - Windows Internet Explorer

https://idcipp.bls.gov/IPP/notTradedWarning.do;jsessionid=PyLvLhQBH6f8jN7Rt88LZfc5k4nIm8qk4VnNnH6mqpsgCNTbTYGII2021800884!176729

International Price Program - Contact Information

## International Price Program

Logout

- 1 Verify Contact Information
- 2 Item Still Available?
- 3 Submit Item Prices
- 4 Verify Item Information

**Continue**

Shows visual focus

Make updates where necessary and click "Continue" when your contact information is correct.

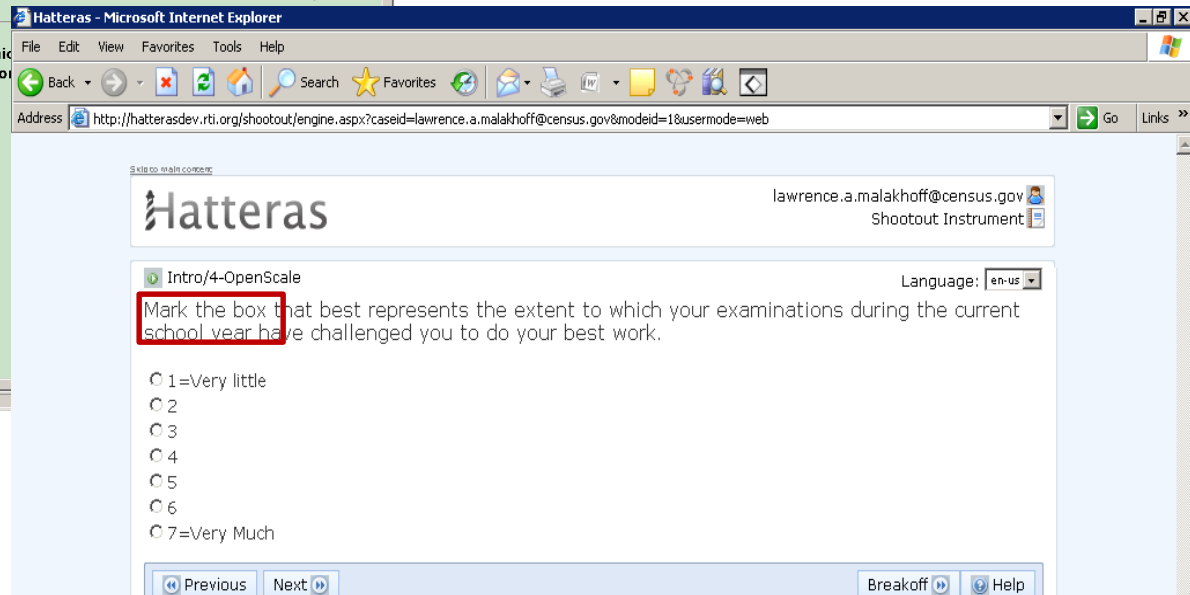
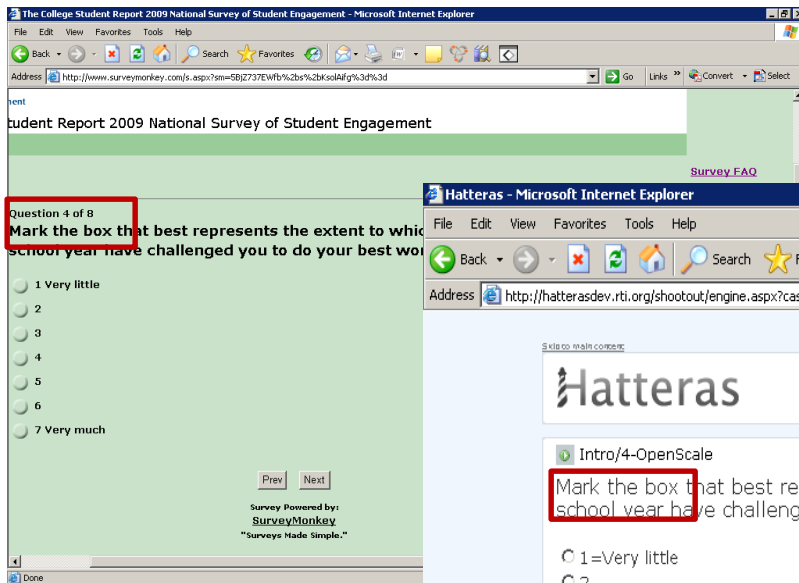
[For more information, click here.](#)

(\* Required Field)

*Name: Test/Web 2	*Telephone: 1111111111 (2029878987)
Title:	Extension:
*Company Name: Bureau of the Census	Fax No.: (2029878987)
Division: IPP	*Email: lawrence.a.malakhoff@census.gov
*Address: 4600 Silver Hill Road	
*City: Washington	
*State: DC *Zip Code: 20233 -	

If you have questions or comments please send e-mail to: [ipp.helpdesk@bls.gov](mailto:ipp.helpdesk@bls.gov)  
Version: 4.4  
URL: <https://idcipp.bls.gov/IPP/content/contact.jsp>

**“Mark the box” is language for a paper form. “Select (or Choose) an option” is appropriate for the Web.**





# Summary

- Illume and Blaise IS developers need to inform screen-reader users about table commands to make their question grids accessible.
- Only H&J provided visual focus when tabbing with JAWS 11 running.
- .NET developers need to provide an alternative to color to inform respondents about missing data.

## Summary(2)

- JAWS users can read H&J and SurveyMonkey screens from top to bottom without additional searching for the question.
- Except for Blaise IS and Hatteras, vocalized labels did match text visible on the screen.
- SurveyMonkey developers should correct display issues before posting a survey.

# Ranking Factors were determined by comparison of shared characteristics between Web surveys.

	GRIDS	FOCUS	NAVIGATION	LABELS	SCORE
.NET	YES	NO	NO	YES	2
ILLUME	NO	NO	NO	YES	1
BLAISE IS	NO	NO	NO	NO	0
HATTERAS	YES	NO	NO	NO	1
SURVEY MONKEY	YES	NO	YES	YES	3
H&J	YES	YES	YES	YES	4

**Minimal navigation and elimination of non-informative verbiage will provide the best experience for JAWS users.**

Homesite & JDeveloper

SurveyMonkey

Hatteras

Illume

Blaise IS

.NET

# Acknowledgements

Andrew Hupp, University of Michigan, ISR

Kevin Tharp, Indiana University

R. Suresh, Research Triangle Institute

Thom Allen, Washington State University

Jean Fox, Bureau of Labor Statistics

# Resources

Good web design:

- [www.usability.gov](http://www.usability.gov)

JAWS screen reader:

- [www.freedomscientific.com](http://www.freedomscientific.com)

Accessible Forms:

- [www.jimthatcher.com/webcourse8.htm](http://www.jimthatcher.com/webcourse8.htm)
- [www.webaim.org/techniques/forms/](http://www.webaim.org/techniques/forms/)