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# Distance Learning Captioning Pilot Project Executive Summary

Distance Learning Steering Committee. ADA Work Group

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# **Distance Learning Captioning Pilot Project Executive Summary**

**Date Prepared:** August 28, 2013

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## **Summary of Need**

The current process for providing closed captions within an online course is per accommodation request by the student through Student Disability Services or by request of Faculty during course development with staff at Instructional Media Services.

### *Legislative Compliance*

The Americans with Disabilities Act applies to most, if not all, public and private colleges and universities in the United States. The Department of Justice (DOJ), which enforces the Act, takes the position that the ADA applies to online communication. In a letter to Senator Tom Harkin of Iowa, DOJ stated:

*Covered entities under the ADA are required to provide effective communication regardless of whether they generally communicate through print media, audio media, or computerized media such as the Internet. Covered entities that use the Internet for communications regarding their programs, goods, or services must be prepared to offer those communications through accessible means as well. ("What laws and," n.d.)*

This interpretation of the law has been used by the Department of Education (DOE) to issue several rulings with regards to online education affecting San Jose State University, California State University, Los Angeles, and the California community college system. ("What laws and," n.d.)

Title II of the ADA requires that communications with person with disabilities must be as effective as communications with others. As interpreted by the US Department of Education Office of Civil Rights in 2003, "as effective as" includes:

- timeliness of delivery
- accuracy of the translation
- provision of the content in a manner and medium appropriate to the significance of the message and the abilities of the individual with the disability

In a recent ruling by the Office of Civil Rights upon several institutions in the state of California, legislation regarding the accessibility of educational materials has been interpreted to mean that all audio and video content must be captioned prior to being made available.

Other charges in relation to accessibility of online learning have recently been brought against Northwestern University, New York University, Pennsylvania State University, Louisiana Tech University, and Florida State University. A proactive approach would help us meet compliance with federal legislation regarding accessibility, and, we predict, would improve the quality of online education for all students at the university.

The USFSP ADA Work Group and contributors conducted a pilot study to determine the benefits of closed captioning of multimedia to students with and without disabilities in online courses. This pilot project was conducted to help inform procedures for a more proactive approach to accessibility in online learning; a necessary approach considering the growing amount of litigation surrounding institutions of higher education and electronic accessibility.

We have prepared this executive summary to provide an analysis of the study data, information on cost effectiveness, and recommendations for further investigation to inform policies and procedures regarding closed captioning for online courses at our institution.

## **The Project**

All video content was closed captioned for two fully online courses previously offered without captions. This allowed for comparison of the student outcome data from both offerings of the course; as well as the collection of student and faculty perspectives of the teaching and learning process using instructional media with and without closed captioning. The purpose of this project was to conduct an analysis of the costs and benefits of moving forward with adding closed captions to all multimedia content for distance learning courses.

## **The Courses**

The two courses selected for participation in this project were *BUL 3320: Law & Business I* and *PSY 2012: Introduction to Psychology*. Both courses were migrated from Blackboard to Canvas in order to deliver the study using the learning management system that the USF system currently employs. In terms of instructional media content, both courses incorporated the full length lecture capture method. This method captures a typical full length lecture in which students will see both the instructor and the powerpoint, or other presentation visuals, on screen. Based on a full length, 16 week semester, the average weekly module lecture video for BUL

3320 was 99 minutes in length, and 108 minutes in length for PSY 2012. Both courses filmed their lectures in the Distance Learning Studio Classroom at Instructional Media Services (IMS) during a regular semester in front of a class of students.

## **Summary of Findings**

The results from our initial investigation into the value of closed captioning in online courses at USFSP show clear-cut advantages.

### *Who Stands to Benefit: Students*

We suspected students would, in general, benefit from the inclusion of closed captioning, and these results support that hypothesis. Only 13.6% of the respondents indicated having a disability, of which, only 6% are registered with Student Disability Services. However, data indicating benefits shows that 98% of students who used the closed captions found them to be helpful (5% slightly, 10% moderately, 35% very, 49% extremely). A table displaying the full results of this survey can be found in Appendix A.

Qualitative responses to our student survey point to four distinct categories of benefits:

1. **Comprehension.** Students reported difficulty hearing the instructor at times for various reasons, and captions allowed them to understand the lectures fully, even when the audio wasn't discernible.
2. **Retention.** Some students found the option to both hear and see content more consistent with their learning styles. These self-described "visual learners" treated captions as a core delivery method, not just a supplement to the audio content.
3. **Spelling of keywords.** Students appreciated the chance to see how unfamiliar words were spelled.
4. **Note taking.** More generally, students reported using captions as a note-taking tool. This suggests the addition of captions can make passive video an active learning experience.

Overall, captions made it easier for students to focus on the instruction and study more efficiently.

These results from the student survey also clarify the kinds of learners likely to benefit from captions. In addition to students with hearing-impairments, captions stand to benefit visual learners, non-native English learners and students participating who happen to be in loud or otherwise distracting environments.

The benefits to students may also be apparent in terms of academic achievement. According to the Faculty Instructor for BUL 3320, the Spring 2013 class (with closed captioning) had a slightly higher class average than the Fall 2012 class (without closed captioning). The Faculty Instructor for PSY 2012 reports that the class average for the Spring 2013 class (with captions) was 7.18% higher than the Summer 2012 class (without closed captioning).

### *Who Stands to Benefit: Faculty*

With regard to the impact of closed captioning on instruction, one of the instructors stated “I was thrilled to be able to offer the on/off captioning option to my students. I really liked that the students could turn off the captioning option if they found it distracting. I have had several students tell me that they like the closed-captioning feature.”

When comparing the Student Assessment of Instruction results for both courses between the two semesters, some differences were observed; however, these differences cannot be considered statistically significant due to the response rate for these surveys.

Based on the comments from the student surveys, four items from the Student Assessment of Instruction could be impacted by closed captioning. These include *Respect and Concern for the Students*, *Facilitation of Learning*, *Communication of Ideas and Information*, and *Overall Rating of the Instructor*.

A positive difference was noted in the assessment data for PSY 2012 as indicated by a slight increase in the *Overall Rating of Instructor*, *Facilitation of Learning*, and *Respect and Concern for the Students*. There was a slight decrease in the *Communication of Ideas and Information*. It should be noted that most communication with the students was facilitated by the Teaching Assistant so we consider this to be a confounding variable.

BUL 3320 experienced slight increases in all categories on the Student Assessment of Instruction. A table displaying the full results of these assessments is available in Appendix B.

### *Cost Analysis*

It is estimated that approximately 12 courses per year use video and multimedia production services through IMS. It is uncertain how many Faculty produce video as part of an online course without the support of IMS.

For this project, a third party vendor transcribed the course videos and supplied the captioning files to be attached to the course videos in post-production at IMS. Through this vendor, the fee is \$150.00 per hour for transcription and provision of caption and transcript files in a variety of formats to be compatible with any video production program. Upon reviewing other vendors offering similar services, this was found to be a competitive rate. The cost to caption all videos for both courses for this project was \$8529.93. At the current production rate of multimedia through IMS, this could potentially reach \$51,174.00 per year to provide closed captions to all online courses as we move forward.

This estimate is based on current rate of multimedia production at IMS. As the Canvas Migration project ends, an increase in multimedia production for course development is expected. Also, closed captioning services would be made available to Faculty who produce multimedia without the support of IMS, of which the production rate is currently unknown.

Additional solutions, currently and potentially available within the institution, could meet our transcription and captioning needs at a cost savings and should be further explored:

1. **Speech - to - Text Software.** This type of software transcribes speech to electronic text and can be very accurate if the speaker spends a short session training the program to recognize their voice.
  - a. Faculty could train a dictation program, such as Dragon Naturally Speaking, and wear a microphone during the presentation to capture and transcribe audio immediately. This transcript could then be proofread, converted to a time stamped caption file and packaged with the video post-production. This process, although time consuming, requires intermediate level technology skills and could be completed by faculty, student employees, or other course development staff. If the video did not require editing, the total time to caption and package could be about twice the length of time of the original recording. If the video is to be edited after recording, additional time should be added to this estimate to edit the transcript to match prior to time-stamping the captions.

Costs to the institution for this solution would include the software license fee for speech-to-text software, at \$199.00 per license, and additional faculty/staff time for post-production captioning. At least one license should be purchased for the DL studio. Additional licenses should be available to faculty who produce media without requesting the support of IMS.
  - b. The video production software, Camtasia, also has speech-to-text capabilities. This program could transcribe and time-stamp captions simultaneously during post-production. The captions would then need to be proofread. Again, this process could be time consuming, but requires intermediate level technology skills and could be completed by faculty, student employees, and other course development staff. This process could be completed after video editing; therefore, captioning, proofreading, and packaging could be about one and a half times the length of time of the original recording.

Costs to the institution for this solution would include the software license fee for Camtasia, at \$179.00 per license, and additional faculty/staff time for post-production captioning. At least one license should be purchased for the DL studio. Additional licenses should be available to faculty who produce media without requesting the support of IMS.
2. **Captionist Position.** If the budget permits, the institution could hire a person with a certification in stenography and a minimum of intermediate technology skills to transcribe, proofread, caption and package all multimedia. It is estimated that this person could process approximately 22 hours of recordings per a 40 hour work week. Accounting for university closures and time off, this position could potentially process approximately 1056 hours of multimedia per year. This estimated production rate is over three times the current amount of video hours being recorded through the DL Studio. It could account for increased recordings after the Canvas Migration and captioning support to faculty who produce media outside of IMS.

Costs to the institution for this solution would include salary for this position. A competitive starting salary is estimated at \$41,600.00 annually, or \$20.00 per hour. Additional costs may include the purchase of stenography equipment and software programs.

### *Other Takeaways: Technical Improvements*

With a 99% accuracy rating, and low cost of captioning when purchased in high volumes, the selected vendor was determined to be the best supplier at the time for the purpose of the project. However, some students reported concerns about the quality of the captions. Accuracy issues and missing spaces between words were observed, and these errors were a potential distraction, possibly curtailing the value of the captions. Instructional Media Services has already begun follow up with the vendor to determine errors and solutions, in addition to reviewing other video delivery technologies.

Additionally, questions asked by the students in the recorded class periods sometimes produced unintelligible audio which the vendor was unable to transcribe. Since the filming of these courses, IMS has installed new microphones to better capture audience questions and comments.

Ultimately, creating a procedure and awareness as to where and how students should report problems with captions is also advisable.

### **Next Steps**

Though not conclusive, the results from this initial investigation provide strong support for further research into the benefits closed captioning can offer to students at USFSP. We see three main ways to advance our work in this area:

1. Evaluate the effectiveness of captions in other courses and content areas. Some students reported benefiting from the clarity captions added to unfamiliar legal terms.
2. Compare self-reported data to learning outcomes. Students' perceptions are important indicators, but provide only an indirect measurement of their learning. We propose evaluating class performance alongside survey responses to better establish the impact of closed captioning on learning outcomes. Ideally, such a study would provide a means to track the amount of exposure to captioning and correlate that time to student performance.
3. Evaluate the functionality of a variety of multimedia delivery tools. The videos for this project were hosted on a server and delivered through a non-native player due to the lack of captioning capability of Canvas; however, since the start of this project, Canvas has implemented support for closed captioning within their media player. We propose to evaluate the functionality of our available media delivery tools in accordance with the needed features as determined by student interaction data and to meet the USF Minimum Electronic and Web Accessibility Standards that have been established by the university since the start of the original project.

It is the intention of the work group to conduct a formal study during Spring 2014. By way of this research, the work group will analyze the more comprehensive data and provide a summary report and recommendations for institutional procedures.

### **References**

Center for Assistive Technology and Environmental Access, Georgia Tech Research on Accessible Distance Education. (n.d.). *What laws and rulings impact the accessibility of online distance education?*

## **Appendices**

A: Student Captioning Survey Results

B: Student Assessment of Instruction Results

# Appendix A: Closed Captioning Project Survey Results: Spring 2013

## Summary of Data: All Sections of Both Courses Compiled

Results Collected: May 20, 2013

Total Responses: 66

	Never	Seldom	Sometimes	Often	Always	
How often did you use closed captioning with the video lessons throughout the semester?	5	1	6	10	44	
	N/A (didn't use)	Not at all	Slightly	Moderately	Very	Extremely
How helpful were the closed captions?	3	1	3	6	22	31
How distracting were the closed captions?	2	53	11	0	0	0
<b>If the closed captions helped, please explain, briefly, how. If they hindered, please explain why:</b>						
They helped because when I was taking notes I was able to pause the video and use the captions rather than rewind and repeat the video.						
I can remember things better if I can read them and hear them.						
The closed captions made it easier to take notes while watching the lectures.						
The closed caption helped when veiwing the videos at home, because I have small children and at times they can be loud. The closed caption allowed me to read when I could not hear what was being said.						
The closed captions helped me considerably. Sometimes the words were squeezed together with no spaces in between, so it definitely requires some cleaning up. However even with these minor errors, the captions were very helpful because sometimes it was hard to understand what the professor was saying. It was very helpful to be able to read along as the professor spoke.						
The closed captions were useful for taking notes. I could pause and just copy the caption.						
Made note taking easier. Could pause the video and read the closed captions.						
I used it in case I missed something the instructor said, I could pause and still see what was said or scroll through to find something I missed. I did find it a little distracting in that there were some words without spaces.						
They clarified any misunderstandings or miscommunications. Made the information easier to learn because I am more of a visual learner.						
When I had to pause to write things down, I could read them right off the screen word for word.						
I would pause the video and write down what she was saying.						

CC was very useful when studying in environments in which hearing became difficult, such as the dorm lounge. In addition, I often find it easier to remember content which I have both read and heard. However, the CC was not entirely accurate and there were many instances of missing spaces, which made it difficult to read at times.
They helped me spell certain words that were important in the lectures.
They helped me a lot. Especially with the new terminology for this class, it helped me not have to rewind, This saved me a lot of time. I wish all video lecturers had this option.
The Closed captions helped very much as It is hard to follow along with exactly what the teacher was stating. The captions assisted with the note taking process.
If the professor said a word I didn't understand I'd go back and read the caption, there were many legal terms that I did not know of and the captions helped me learn how to spell them. Also, when there was question from the students in the class it helped to know what was being asked since the sound would be really low.
They made it easier to take notes.
I could understand better because there are many words used in law that I did not know the definition.
They helped in writing down terms that we needed to remember.
I'm a visual learner so I like to see the words spoken in lectures.
Sometimes her voice/words would blend together and the captions helped with figuring out what she said. Also helped with spelling when writing fast!
I did not pay much attention to them
I was able to see exactly what the professor was saying and I was able to follow along in case I was not able to understand the professor.
I could go back and pause the video and write down the caption in my notes instead of re watching it trying to catch what the professor said
It was not as accurate as I had hoped :( some of the words threw me off and I had to rewind and listen to Dr. Mchale because it was just way off
They helped me follow along and write better notes.
Closed captioning was helpful when there were things in the classroom that I couldn't really use and especially helpful when I couldn't play the sound while studying and had to rely on closed captioning completely in order to understand what was happening in the lecture.
Sometimes, they were easier to understand the lecture.
I was better able to follow along using the captions especially at times where the students were talking I found the captions to be extremely helpful.
Didn't use it.
I took notes on what he said, and I wasn't always sure on what he said so I would pause it and write down what the caption said.
Helped me because it's not my first language. It was extremely helpful and I took tons of notes.
Being able to read what is said helps solidify what was said.
They would help for the most part, sometimes I guess they could be unhelpful.
They helped me so that when I wasn't sure what was said I could stop it and reread it to better understand.

I didnt have to watch the video or the teacher, I could read everything that was said.
The closed captioning was very helpful with regards to note taking
They helped because if I missed something that was said, or didn't quite understand I could pause the video and write down the caption. I used it to get definitions and important information.
Because if I couldn't hear I could look at them.
There were some occassions were I couldn't understand what was said and the captions helped. Also, there were a few times that the video "skipped" but I was still able to read the captions.
There were times that the professor was mumbling and had it not been for the CC I would not have been able to make out what was being said.
Close caption helped me because I was able to read and process what was being said a little easier
The closed captioning helped because I am a visual learner as well as audio so it was great to have both and also be able to pause the video whenever I needed and efficiently take notes and review what Dr. McHale says
The closed captions were helpful if I wasn't sure how to spell something. They were also helpful if I needed to go back and write something down, I was able to rewind and read what the professor had said.
Sometimes when I was taking notes and trying to listen to the lecture, I paused and read the closed captions and was able to get the information down better than just listening to the same information over and over again to try to get that same information.
I really liked having the words available for me to read them as he talked. It also helped me stay on track and pay attention to every thing he was talking about. The words also helped me take notes because I would pause the video and then spell correctly some of the hard to spell psych terms down.
It helped me by letting me catch up to the words and vocabulary that I need to learn.
They helped when the audio was not working correctly. also as I was taking notes i could pause the video and write instead of the need to rewind and listen a few times.
I'm a visual learner, so having the words on screen was very helpful to me. I was able to listen to the lecture and type out notes, but I could go back to the closed captions and read what I missed if I lost my place. I enjoyed using them.
They definitely help. There were times where I didn't quite hear everything that was being said, so I would rewind the video and read what was being said. Also, I have a small hearing loss so being able to read what was going on definitely helped!
They helped because it allowed me to read and know exactly what my professor was saying.
I feel like it helped me by not only being able to hear what the professor was saying, but also being able to see it.
They helped because I don't like to wear headphones and would often times listen to the lecture in a loud room, so reading the captions allowed me to folow the class.
It's very good if you can't understand what the professor is saying due to the video quality or they could be talking too fast.
I am a visual learner, so reading what Dr. McHale was saying helped me to absorb the information and better understand the content he was teaching.
I like the closed captions because i was listening and seeing the words. Also the closed captions helped if I missed a word or statement because this on online class you can lose focus for a second, and so closed caption came in handy.

The CC were helpful, if occasionally inaccurate. Fix that, and you'll be golden.					
	Not at all	Slightly	Moderately	Very	Extremely
How helpful was it for the course to have video lectures?	0	0	3	21	42
	A	B	C	D	F
What is your anticipated grade?	24	34	7	1	0
	None	1-2	3-4	5-6	7+
Aside from this course, how many online or hybrid classes have you taken?	16	11	18	6	15
<b>Outside of this course, describe your experiences with closed captioning in an academic setting:</b>					
They are extremely helpful and I appreciate having them.					
I have no other real experience with closed captioning.					
N/A					
This is the first time I have used it for a course.					
Never had the option before, really wish I had, would of saved me a lot.					
Very little experience.					
None.					
Very good					
I think it is good.					
This is my first time with closed captions					
I actually have never had a class with lectures in it. I prefer not having lectures in a class, I like when the exams are off reading material or other items, it's hard to carve out time to watch lectures that are over an hour long each when you have 5-6 per section.					
I use them when I watch YouTube videos when it is an informational video					
Videos in class					
this is it.					
I have none.					
This would be the first time that I have experienced closed captioning on an academic level but as an ASL interpreter in training I am positive that I will continue to encounter it in the future.					
I haven't had any encounter with closed captioning in any other academic setting but I feel that other online teachers should use it.					
Didn't use it.					
Always helps					

this is one of the few classes with caps.  
 I have never taken another online course with closed captioning.  
 I have not experienced it before.  
 I have never had a class use closed captioning.  
 never experienced before  
 This was the first online class with video lectures containing closed captioning that I have taken  
 I never really used the closed captioning in a online class besides this one.  
 This has been my first experience with it and I really enjoyed it.  
 I have never been offered closed captioning in any other course.  
 none  
 I also think they are extremely helpful because I am an audio and visual learner.  
 This is the first time I have used closed captioning in an academic setting.  
 No other teachers have recorded their classes and had them posted online like this one. I found I liked this online class much better than any of the others. The videos were great and the closed captions were excellent. Made this online class have more of a real class feel to it.  
 This is the only academic setting where this closed captioning came into play; I have really enjoyed it.  
 I don't have any experience with closed captioning in an academic setting besides this course.  
 I took my first online class in the semester prior to this one, and there were some online videos I had to watch. I can't remember if all of them had closed captioning, but they were somewhat helpful.  
 I think the only time I'd ever dealt with closed captioning in an academic setting would be in a few of my classes in 9th grade, when we would watch videos and had students who were completely deaf in our class.  
 I have not had closed captioning in any of my other online classes.  
 Closed captioning makes such a difference. I personally have to write down most of what the professor says, so the closed captioning assisted with spelling errors.  
 This is the first class that has ever used closed captioning and I appreciated it  
 Other online classes I've taken have had videos that used closed captioning.  
 I have never used it before, and now I love it.

	Never	Seldom	Sometimes	Often	Always			
<b>Do you ever struggle with focusing or maintaining attention in class?</b>	3	22	27	11	3			
<b>Do you have a disability?</b>	Yes 9			No 57				
	Chronic Medical	Learning Disability	Sensory Disability	Physical Disability	Mental Illness	Intellectual Disability	Developmental Disability	No Answer

Disorder								
If so, what is your disability type?	1	5	1	1	1	0	0	57
	Yes			No			No Answer	
Are you registered with Student Disability Services?	4			61			1	

### BUL 3320: Law and Business Section 1

Results Collected: May 20, 2013

Total Responses: 17

	Never	Seldom	Sometimes	Often	Always	
How often did you use closed captioning with the video lessons throughout the semester?	2	0	3	3	9	
	N/A (didn't use)	Not at all	Slightly	Moderately	Very	Extremely
How helpful were the closed captions?	0	1	1	3	6	6
How distracting were the closed captions?	0	14	3	0	0	0
<b>If the closed captions helped, please explain, briefly, how. If they hindered, please explain why:</b>						
They helped because when I was taking notes I was able to pause the video and use the captions rather than rewind and repeat the video.						
I can remember things better if I can read them and hear them.						
The closed captions made it easier to take notes while watching the lectures.						
The closed caption helped when veiwing the videos at home, because I have small children and at times they can be loud. The closed caption allowed me to read when I could not hear what was being said.						
The closed captions helped me considerably. Sometimes the words were squeezed together with no spaces in between, so it definitely requires some cleaning up. However even with these minor errors, the captions were very helpful because sometimes it was hard to understand what the professor was saying. It was very helpful to be able to read along as the professor spoke.						
The closed captions were useful for taking notes. I could pause and just copy the caption.						

Made note taking easier. Could pause the video and read the closed captions.								
I used it in case I missed something the instructor said, I could pause and still see what was said or scroll through to find something I missed. I did find it a little distracting in that there were some words without spaces.								
They clarified any misunderstandings or miscommunications. Made the information easier to learn because I am more of a visual learner.								
When I had to pause to write things down, I could read them right off the screen word for word.								
I would pause the video and write down what she was saying.								
CC was very useful when studying in environments in which hearing became difficult, such as the dorm lounge. In addition, I often find it easier to remember content which I have both read and heard. However, the CC was not entirely accurate and there were many instances of missing spaces, which made it difficult to read at times.								
They helped me spell certain words that were important in the lectures.								
	<b>Not at all</b>	<b>Slightly</b>	<b>Moderately</b>	<b>Very</b>	<b>Extremely</b>			
<b>How helpful was it for the course to have video lectures?</b>	0	0	0	7	10			
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>F</b>			
<b>What is your anticipated grade?</b>	4	11	2	0	0			
	<b>None</b>	<b>1-2</b>	<b>3-4</b>	<b>5-6</b>	<b>7+</b>			
<b>Aside from this course, how many online or hybrid classes have you taken?</b>	3	2	6	3	3			
<b>Outside of this course, describe your experiences with closed captioning in an academic setting:</b>								
They are extremely helpful and I appreciate having them.								
I have no other real experience with closed captioning.								
N/A								
This is the first time I have used it for a course.								
	<b>Never</b>	<b>Seldom</b>	<b>Sometimes</b>	<b>Often</b>	<b>Always</b>			
<b>Do you ever struggle with focusing or maintaining attention in class?</b>	1	5	7	3	1			
	<b>Yes</b>				<b>No</b>			
<b>Do you have a disability?</b>	2				15			
	<b>Chronic Medical</b>	<b>Learning Disability</b>	<b>Sensory Disability</b>	<b>Physical Disability</b>	<b>Mental Illness</b>	<b>Intellectual Disability</b>	<b>Developmental Disability</b>	<b>No Answer</b>

Disorder								
If so, what is your disability type?	1	1	0	0	0	0	0	15
	Yes			No			No Answer	
Are you registered with Student Disability Services?	1		15			1		

**BUL 3320: Law and Business Section 2**

Results Collected: May 20, 2013

Total Responses: 8

	Never	Seldom	Sometimes	Often	Always	
How often did you use closed captioning with the video lessons throughout the semester?	0	0	0	1	7	
	N/A (didn't use)	Not at all	Slightly	Moderately	Very	Extremely
How helpful were the closed captions?	0	0	0	0	2	6
How distracting were the closed captions?	0	8	0	0	0	0
<b>If the closed captions helped, please explain, briefly, how. If they hindered, please explain why:</b>						
They helped me a lot. Especially with the new terminology for this class, it helped me not have to rewind, This saved me a lot of time. I wish all video lecturers had this option.						
The Closed captions helped very much as It is hard to follow along with exactly what the teacher was stating. The captions assisted with the note taking process.						
If the professor said a word I didn't understand I'd do back and read the caption, there were many legal terms that I did not know of and the captions helped me learn how to spell them. Also, when there was question from the students in the class it helped to know what was being asked since the sound would be really low.						
They made it easier to take notes.						
I could understand better because the are many words used in law that I did not know the definition.						
The helped in writing down terms that we needed to remember.						

I'm a visual learner so I like to see the words spoken in lectures.								
Sometimes her voice/words would blend together and the captions helped with figuring out what she said. Also helped with spelling when writing fast!								
	<b>Not at all</b>	<b>Slightly</b>	<b>Moderately</b>	<b>Very</b>	<b>Extremely</b>			
<b>How helpful was it for the course to have video lectures?</b>	0	0	1	0	7			
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>F</b>			
<b>What is your anticipated grade?</b>	3	5	0	0	0			
	<b>None</b>	<b>1-2</b>	<b>3-4</b>	<b>5-6</b>	<b>7+</b>			
<b>Aside from this course, how many online or hybrid classes have you taken?</b>	1	0	0	1	6			
<b>Outside of this course, describe your experiences with closed captioning in an academic setting:</b>								
Never had the option before, really wish I had, would of saved me a lot.								
Very little experience.								
None.								
Very good								
I think it is good.								
This is my first time with closed captions								
I actually have never had a class with lectures in it. I prefer not having lectures in a class, I like when the exams are off reading material or other items, it's hard to carve out time to watch lectures that are over an hour long each when you have 5-6 per section.								
	<b>Never</b>	<b>Seldom</b>	<b>Sometimes</b>	<b>Often</b>	<b>Always</b>			
<b>Do you ever struggle with focusing or maintaining attention in class?</b>	1	2	3	2	0			
	<b>Yes</b>				<b>No</b>			
<b>Do you have a disability?</b>	1				7			
	<b>Chronic Medical Disorder</b>	<b>Learning Disability</b>	<b>Sensory Disability</b>	<b>Physical Disability</b>	<b>Mental Illness</b>	<b>Intellectual Disability</b>	<b>Developmental Disability</b>	<b>No Answer</b>
<b>If so, what is your disability type?</b>	0	0	0	1	0	0	0	7

	Yes	No	No Answer
Are you registered with Student Disability Services?	1	7	

**PSY 2012: Introduction to Psychology**

Results Collected: May 20, 2013

Total Responses: 41

	Never	Seldom	Sometimes	Often	Always	
How often did you use closed captioning with the video lessons throughout the semester?	3	1	3	6	28	
	N/A (didn't use)	Not at all	Slightly	Moderately	Very	Extremely
How helpful were the closed captions?	3	0	2	3	14	19
How distracting were the closed captions?	2	31	8	0	0	0
<b>If the closed captions helped, please explain, briefly, how. If they hindered, please explain why:</b>						
I did not pay much attention to them						
I was able to see exactly what the professor was saying and I was able to follow along in case I was not able to understand the professor.						
I could go back and pause the video and write down the caption in my notes instead of re watching it trying to catch what the professor said						
It was not as accurate as I had hoped :( some of the words threw me off and I had to rewind and listen to Dr. Mchale because it was just way off						
They helped me follow along and write better notes.						
Closed captioning was helpful when there was things in the classroom that I couldn't really use and especially helpful when I couldn't play the sound while studying and had to rely on closed captioning completely in order to understand what was happening in the lecture.						
Sometimes, they were easier to understand the lecture.						
I was better able to follow along using the captions especially at times where the students were talking I found the captions to be extremely helpful.						
Didn't use it.						

I took notes on what he said, and I wasn't always sure on what he said so I would pause it a write down what the caption said.
Helped me because it's not my first language. It was extremely helpful and I took tons of notes.
Being able to read what is said helps solidify what was said.
They would help for the most part, sometimes I guess they could be unhelpful.
They helped me so that when I wasn't sure what was said I could stop it and reread it to better understand.
I didnt have to watch the video or the teacher, I could read everything that was said.
The closed captioning was very helpful with regards to note taking
They helped because if I missed something that was said, or didn't quite understand I could pause the video and write down the caption. I used it to get definitions and important information.
Because if I couldn't hear I could look at them.
There were some occassions were I couldn't understand what was said and the captions helped. Also, there were a few times that the video "skipped" but I was still able to read the captions.
There were times that the professor was mumbling and had it not been for the CC I would not have been able to make out what was being said.
Close caption helped me because I was able to read and process what was being said a little easier
The closed captioning helped because I am a visual learner as well as audio so it was great to have both and also be able to pause the video whenever I needed and efficiently take notes and review what Dr. McHale says
The closed captions were helpful if I wasn't sure how to spell something. They were also helpful if I needed to go back and write something down, I was able to rewind and read what the professor had said.
Sometimes when I was taking notes and trying to listen to the lecture, I paused and read the closed captions and was able to get the information down better than just listening to the same information over and over again to try to get that same information.
I really liked having the words available for me to read them as he talked. It also helped me stay on track and pay attention to every thing he was talking about. The words also helped me take notes because I would pause the video and then spell correctly some of the hard to spell psych terms down.
It helped me by letting me catch up to the words and vocabulary that I need to learn.
They helped when the audio was not working correctly. also as I was taking notes i could pause the video and write instead of the need to rewind and listen a few times.
I'm a visual learner, so having the words on screen was very helpful to me. I was able to listen to the lecture and type out notes, but I could go back to the closed captions and read what I missed if I lost my place. I enjoyed using them.
They definitely help. There were times where I didn't quite hear everything that was being said, so I would rewind the video and read what was being said. Also, I have a small hearing loss so being able to read what was going on definitely helped!
They helped because it allowed me to read and know exactly what my professor was saying.
I feel like it helped me by not only being able to hear what the professor was saying, but also being able to see it.
They helped because I don't like to wear headphones and would often times listen to the lecture in a loud room, so reading the captions allowed me to folow the class.

It's very good if you can't understand what the professor is saying due to the video quality or they could be talking too fast.					
I am a visual learner, so reading what Dr. McHale was saying helped me to absorb the information and better understand the content he was teaching.					
I like the closed captions because i was listening and seeing the words. Also the closed captions helped if I missed a word or statement because this on online class you can lose focus for a second, and so closed caption came in handy.					
The CC were helpful, if occasionally inaccurate. Fix that, and you'll be golden.					
	<b>Not at all</b>	<b>Slightly</b>	<b>Moderately</b>	<b>Very</b>	<b>Extremely</b>
<b>How helpful was it for the course to have video lectures?</b>	0	0	2	14	25
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>F</b>
<b>What is your anticipated grade?</b>	17	18	5	1	0
	<b>None</b>	<b>1-2</b>	<b>3-4</b>	<b>5-6</b>	<b>7+</b>
<b>Aside from this course, how many online or hybrid classes have you taken?</b>	12	9	12	2	6
<b>Outside of this course, describe your experiences with closed captioning in an academic setting:</b>					
I use them when I watch YouTube videos when it is an informational video					
Videos in class					
this is it.					
I have none.					
This would be the first time that I have experienced closed captioning on an academic level but as an ASL interpreter in training I am positive that I will continue to encounter it in the future.					
I haven't had any encounter with closed captioning in any other academic setting but I feel that other online teachers should use it.					
Didn't use it.					
Always helps					
this is one of the few classes with caps.					
I have never taken another online course with closed captioning.					
I have not experienced it before.					
I have never had a class use closed captioning.					
never experienced before					
This was the first online class with video lectures containing closed captioning that I have taken					
I never really used the closed captioning in a online class besides this one.					

This has been my first experience with it and I really enjoyed it.

I have never been offered closed captioning in any other course.

none

I also think they are extremely helpful because I am an audio and visual learner.

This is the first time I have used closed captioning in an academic setting.

No other teachers have recorded their classes and had them posted online like this one. I found I liked this online class much better than any of the others. The videos were great and the closed captions were excellent. Made this online class have more of a real class feel to it.

This is the only academic setting where this closed captioning came into play; I have really enjoyed it.

I don't have any experience with closed captioning in an academic setting besides this course.

I took my first online class in the semester prior to this one, and there were some online videos I had to watch. I can't remember if all of them had closed captioning, but they were somewhat helpful.

I think the only time I'd ever dealt with closed captioning in an academic setting would be in a few of my classes in 9th grade, when we would watch videos and had students who were completely deaf in our class.

I have not had closed captioning in any of my other online classes.

Closed captioning makes such a difference. I personally have to write down most of what the professor says, so the closed captioning assisted with spelling errors.

This is the first class that has ever used closed captioning and I appreciated it

Other online classes I've taken have had videos that used closed captioning.

I have never used it before, and now I love it.

	Never	Seldom	Sometimes	Often	Always			
<b>Do you ever struggle with focusing or maintaining attention in class?</b>	1	15	17	6	2			
<b>Do you have a disability?</b>	Yes 6				No 35			
<b>If so, what is your disability type?</b>	<b>Chronic Medical Disorder</b>	<b>Learning Disability</b>	<b>Sensory Disability</b>	<b>Physical Disability</b>	<b>Mental Illness</b>	<b>Intellectual Disability</b>	<b>Developmental Disability</b>	<b>No Answer</b>
	0	4	1	0	1	0	0	35
<b>Are you registered with Student Disability Services?</b>	Yes 2			No 39		No Answer 0		

## Appendix B: Closed Captioning Project Student Assessment of Instruction Results

### Summary of Data: All Sections of Both Courses Compiled

Item	Mean (no captions)	Mean (with captions)	Difference
<b>PSY 2012: Introduction to Psychology</b>			
Description of Course Objectives & Assignments	4.38	4.42	+ .04
Communication of Ideas and Information	4.58	4.48	-.1
Expression of Expectations for Performance	4.42	4.43	+01
Availability to Assist Students In or Out of Class	4.04	4.24	+2
Respect and Concern for the Students	4.15	4.49	+.34
Stimulation of Interest in the Course	4.5	4.43	-.07
Facilitation of Learning	4.23	4.43	+.2
Overall Rating of the Instructor	4.42	4.57	+.15
<b>BUL 3320: Law and Business I</b>			
Description of Course Objectives & Assignments	4.59	4.78	+.19
Communication of Ideas and Information	4.59	4.62	+.03
Expression of Expectations for Performance	4.65	4.8	+.15
Availability to Assist Students In or Out of Class	4.52	4.76	+.24
Respect and Concern for the Students	4.6	4.81	+.21
Stimulation of Interest in the Course	4.38	4.56	+.18
Facilitation of Learning	4.46	4.76	+.3
Overall Rating of the Instructor	4.61	4.82	+.21

## Individual Data

Data compiled in this report was pulled from the USF FAIR system.

### PSY 2012: Introduction to Psychology

(no captions) = Spring 2012, 1 section, 172 enrolled, 26 responded, Blackboard

(with captions) = Spring 2013, 1 section, 136 enrolled, 70 responded, Canvas

### BUL 3320: Law and Business I

(no captions) = Fall 2012, 3 sections, 162 enrolled, 92 responded, Blackboard

(with captions) = Spring 2013, 2 sections, 105 enrolled, 47 responded, Canvas

### PSY 2012: Introduction to Psychology

Full Semester Online Course Spring 2012 (no captions)

ITEM ID	ITEM	Excellent		Very Good		Good		Fair		Poor		No Response		Mean
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
E1	Description of Course Objectives & Assignments	14	53.85	8	30.77	4	15.38	0	0.00	0	0.00	0	0.00	4.38
E2	Communication of Ideas and Information	19	73.08	3	11.54	4	15.38	0	0.00	0	0.00	0	0.00	4.58
E3	Expression of Expectations for Performance	17	65.38	3	11.54	6	23.08	0	0.00	0	0.00	0	0.00	4.42
E4	Availability to Assist Students In or Out of Class	11	42.31	5	19.23	10	38.46	0	0.00	0	0.00	0	0.00	4.04
E5	Respect and Concern for the Students	11	42.31	9	34.62	5	19.23	1	3.85	0	0.00	0	0.00	4.15
E6	Stimulation of Interest in	20	76.92	0	0.00	5	19.23	1	3.85	0	0.00	0	0.00	4.50

	the Course													
E7	Facilitation of Learning	14	53.85	4	15.38	8	30.77	0	0.00	0	0.00	0	0.00	4.23
E8	Overall Rating of the Instructor	16	61.54	5	19.23	5	19.23	0	0.00	0	0.00	0	0.00	4.42

### PSY 2012: Introduction to Psychology

Full Semester Online Course Spring 2013 (with captions)

ITEM ID	ITEM	Excellent		Very Good		Good		Fair		Poor		No Response		Mean
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
E1	Description of Course Objectives & Assignments	44	62.86	16	22.86	5	7.14	2	2.86	2	2.86	1	1.43	4.42
E2	Communication of Ideas and Information	46	65.71	16	22.86	3	4.29	2	2.86	2	2.86	1	1.43	4.48
E3	Expression of Expectations for Performance	45	64.29	14	20.00	7	10.00	1	1.43	2	2.86	1	1.43	4.43
E4	Availability to Assist Students In or Out of Class	38	54.29	16	22.86	7	10.00	3	4.29	3	4.29	3	4.29	4.24
E5	Respect and Concern for the Students	46	65.71	15	21.43	3	4.29	2	2.86	2	2.86	2	2.86	4.49
E6	Stimulation of Interest in the Course	46	65.71	13	18.57	6	8.57	2	2.86	2	2.86	1	1.43	4.43
E7	Facilitation of Learning	47	67.14	11	15.71	7	10.00	2	2.86	2	2.86	1	1.43	4.43
E8	Overall Rating of the Instructor	51	72.86	10	14.29	6	8.57	0	0.00	2	2.86	1	1.43	4.57

**BUL 3320: Law and Business I**

Full Semester Online Course Fall 2012 (no captions, three sections)

ITEM ID	ITEM	Excellent		Very Good		Good		Fair		Poor		No Response		Mean
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
E1	Description of Course Objectives & Assignments	38	88.37	3	6.98	2	4.65	0	0.00	0	0.00	0	0.00	4.84
E2	Communication of Ideas and Information	34	79.07	6	13.95	3	6.98	0	0.00	0	0.00	0	0.00	4.72
E3	Expression of Expectations for Performance	33	76.74	5	11.63	4	9.30	0	0.00	0	0.00	1	2.33	4.69
E4	Availability to Assist Students In or Out of Class	30	69.77	6	13.95	4	9.30	1	2.33	0	0.00	2	4.65	4.59
E5	Respect and Concern for the Students	36	83.72	1	2.33	5	11.63	0	0.00	0	0.00	1	2.33	4.74
E6	Stimulation of Interest in the Course	32	74.42	7	16.28	3	6.98	0	0.00	1	2.33	0	0.00	4.60
E7	Facilitation of Learning	35	81.40	5	11.63	3	6.98	0	0.00	0	0.00	0	0.00	4.74
E8	Overall Rating of the Instructor	38	88.37	2	4.65	3	6.98	0	0.00	0	0.00	0	0.00	4.81

ITEM ID	ITEM	Excellent		Very Good		Good		Fair		Poor		No Response		Mean
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
E1	Description of Course Objectives &	22	73.33	5	16.67	2	6.67	1	3.33	0	0.00	0	0.00	4.60

	Assignments													
E2	Communication of Ideas and Information	21	70.00	3	10.00	5	16.67	1	3.33	0	0.00	0	0.00	4.47
E3	Expression of Expectations for Performance	22	73.33	5	16.67	2	6.67	1	3.33	0	0.00	0	0.00	4.60
E4	Availability to Assist Students In or Out of Class	19	63.33	2	6.67	4	13.33	1	3.33	1	3.33	3	10.00	4.37
E5	Respect and Concern for the Students	20	66.67	4	13.33	3	10.00	2	6.67	0	0.00	1	3.33	4.45
E6	Stimulation of Interest in the Course	18	60.00	4	13.33	3	10.00	3	10.00	1	3.33	1	3.33	4.21
E7	Facilitation of Learning	20	66.67	3	10.00	3	10.00	1	3.33	2	6.67	1	3.33	4.31
E8	Overall Rating of the Instructor	19	63.33	6	20.00	3	10.00	2	6.67	0	0.00	0	0.00	4.40

TEM ID	ITEM	Excellent		Very Good		Good		Fair		Poor		No Response		Mean
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
E1	Description of Course Objectives & Assignments	12	63.16	2	10.53	2	10.53	2	10.53	0	0.00	1	5.26	4.33
E2	Communication of Ideas and Information	12	63.16	3	15.79	2	10.53	0	0.00	0	0.00	2	10.53	4.59
E3	Expression of Expectations for Performance	12	63.16	4	21.05	1	5.26	0	0.00	0	0.00	2	10.53	4.65
E4	Availability to Assist Students In or Out of	10	52.63	4	21.05	1	5.26	0	0.00	0	0.00	4	21.05	4.60

	Class													
E5	Respect and Concern for the Students	12	63.16	5	26.32	1	5.26	0	0.00	0	0.00	1	5.26	4.61
E6	Stimulation of Interest in the Course	11	57.89	4	21.05	1	5.26	2	10.53	0	0.00	1	5.26	4.33
E7	Facilitation of Learning	11	57.89	4	21.05	2	10.53	0	0.00	1	5.26	1	5.26	4.33
E8	Overall Rating of the Instructor	13	68.42	3	15.79	2	10.53	0	0.00	0	0.00	1	5.26	4.61

### BUL 3320: Law and Business I

Full Semester Online Course Spring 2013 (with captions, two sections)

ITEM ID	ITEM	Excellent		Very Good		Good		Fair		Poor		No Response		Mean
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
E1	Description of Course Objectives & Assignments	21	72.41	7	24.14	1	3.45	0	0.00	0	0.00	0	0.00	4.69
E2	Communication of Ideas and Information	20	68.97	9	31.03	0	0.00	0	0.00	0	0.00	0	0.00	4.69
E3	Expression of Expectations for Performance	23	79.31	5	17.24	1	3.45	0	0.00	0	0.00	0	0.00	4.76
E4	Availability to Assist Students In or Out of Class	21	72.41	4	13.79	2	6.90	0	0.00	0	0.00	2	6.90	4.70
E5	Respect and Concern for the Students	24	82.76	4	13.79	1	3.45	0	0.00	0	0.00	0	0.00	4.79
E6	Stimulation of Interest in the Course	21	72.41	5	17.24	1	3.45	2	6.90	0	0.00	0	0.00	4.55

E7	Facilitation of Learning	23	79.31	4	13.79	1	3.45	1	3.45	0	0.00	0	0.00	4.69
E8	Overall Rating of the Instructor	23	79.31	5	17.24	1	3.45	0	0.00	0	0.00	0	0.00	4.76

ITEM ID	ITEM	Excellent		Very Good		Good		Fair		Poor		No Response		Mean
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
E1	Description of Course Objectives & Assignments	14	77.78	4	22.22	0	0.00	0	0.00	0	0.00	0	0.00	4.78
E2	Communication of Ideas and Information	12	66.67	4	22.22	2	11.11	0	0.00	0	0.00	0	0.00	4.56
E3	Expression of Expectations for Performance	16	88.89	1	5.56	1	5.56	0	0.00	0	0.00	0	0.00	4.83
E4	Availability to Assist Students In or Out of Class	15	83.33	1	5.56	1	5.56	0	0.00	0	0.00	1	5.56	4.82
E5	Respect and Concern for the Students	16	88.89	1	5.56	1	5.56	0	0.00	0	0.00	0	0.00	4.83
E6	Stimulation of Interest in the Course	13	72.22	3	16.67	1	5.56	1	5.56	0	0.00	0	0.00	4.56
E7	Facilitation of Learning	16	88.89	1	5.56	1	5.56	0	0.00	0	0.00	0	0.00	4.83
E8	Overall Rating of the Instructor	16	88.89	0	0.00	1	5.56	0	0.00	0	0.00	1	5.56	4.88