Addressing the Limitations:

Providing Differentiated Options for Comprehensive Exams

Ruth Currey

University of Central Florida
One of the largest debates throughout the history of arts education revolves around the concept of assessment with the most popular question being, “how will you assess your students when your area is inherently subjective?” Aside from providing the standard answer of using a rubric or grading based on effort, very few specifics have ever been established for the field of art education. Unfortunately, in today’s day and age, this lack of specificity poses a distinct problem.

Most content areas have an established national or state test that attempts to evaluate to the achievement gaps and learning gains of all students. These tests focus on a generalized overview of all content areas that should be introduced at different educational levels of each student. However, with the exception of the NAEP exam that is administered every decade, there are no national or state tests that encompass the arts, and more specifically computer-based arts. For this reason, advocates and researchers fear that if, “what cannot be tested cannot be taught, the arts in the near future may face being left out of the curriculum” (Dorn, 2002, p. 40).

Fortunately, the most logical solution for this particular problem should be simple enough to establish: create a standard art exam. Unfortunately, the solution is not quite as simple as it may seem. When addressing assessment in the arts, there are multiple schools of thought regarding the most appropriate and most effective methods. There are some researchers who believe that written assessment accurately demonstrates a student’s knowledge and accurately accounts for learning gains over a course of study. National exams such as the NAEP attempt to quantify learning gains in the form of multiple choice and short answer questions. Although
NAEP does include a studio component, the main focus relies heavily on the completion of the written portion of the exam.

However, there are other schools of thought who think differently. Researchers such as Charles Dorn feel that there is a distinct validity to project-based arts assessments. Dorn (2002) feels that educators should be able to create their own authentic arts assessment by taking into consideration what teachers are actually teaching and what competencies need to be taught. According to Dorn, the most effective way to achieve the proper creation of these authentic assessments “lies in deciding what it is that kids need to know and be able to do and make that the primary focus in reforming schools and schooling” (Dorn, 2002, pp. 44-45).

Although the debate over assessment in the arts seems to produce advocates who specifically favor one of the two poles, a growing number of researchers have moved toward the center ground and contend that a more balanced approach to assessment is the most effective method to identify accurate learning gains for all students. Researchers such as Donald Gruber contend that, “no single aspect of assessment can provide a representative and accurate measure of student learning in art” (Gruber, 2008, p. 42). Other researchers who share Gruber’s views feel that, “a balanced approach to grading considers both student engagement in the process of creation and the quality of the resulting product or performance” (Clark 2002, p. 30).

Currently, the debate remains stagnant. Each side believes in one form of assessment or another while some advocates and researchers believe a balanced approach is the most effective solution. However, none of the schools of thought
even consider the computer-based art classrooms and none of the stances are willing to consider all viable options. For this reason, an informal pilot study was conducted in the spring of 2010 in a local central Florida high school to examine the possibility of determining the most appropriate assessment model for a computer based art classroom. This preliminary pilot study was specifically conducted with the purpose of examining the achievement gaps and learning gains differences between written and project-based assessments.

The participants for the pilot study were categorized by three academic classifications that included, Gifted, Mainstream, and Exceptional Education (ESE). The data collected from this pilot study provided preliminary insight into how all classifications of student participants performed over four different assessments, which include two written assessments and two performance-based tasks. Generally speaking, the data indicated that all three classifications scored higher on performance-based assessments. Overall, the Gifted classification outperformed the other two categories in all areas, however, with the performance-based assessments, some students classified as ESE significantly outperformed the Mainstream students. This outcome as well as other statistically significant data collected, including higher point distribution for performance-based assessments, indicated higher learning potential for ESE students that were not being addressed properly through standard written assessments.

These identified limitations were presented at the conclusion of the pilot study and suggestions for the additions of auditory and visual cues to the exams were proposed in order to provide equal opportunity for all students to successfully
demonstrate learning gains. Therefore, in this paper, I intend to address the limitations proposed in the previous pilot study conducted in the spring of 2010 by creating and administering two new assessment methods that accommodate both the auditory and visual needs of ESE students as well as readjusting the point distributions between written and performance-based tasks. Once the accommodations are appropriately met, participating students will demonstrate higher learning gains and improved exam scores.

When reevaluating and restructuring the process of continuing the study conducted in the spring of 2010, there are a few research questions to consider; ‘Does written assessment give students with written language limitations the best opportunity for success or does it ensure failure?’, ‘Can a form of written assessment include elements that compensate for the lack of opportunity for performance based assessment?’, ‘How will auditory assessment options reflect the overall achievement of students who are lower functioning with written language?’, ‘If an assessment were created to accommodate those needs, what would it look like?’

Method

Participants

High school students currently enrolled in a Computer Animation I course at a local Central Florida public school, will participate in an informal study to evaluate differentiated assessment methods designed to accommodate the auditory and visual needs of ESE students in mainstream technology based art classrooms. The participant group will be taken from a convenience sampling of students from my
classroom and represents the approximate enrollment number for one full school year.

During the preliminary study conducted in the spring of 2010, no stratification was given for race, gender, or socioeconomic status and student participants were subdivided into three academic classifications; Gifted, Mainstream, and Exceptional Education (ESE). For the proposed amended study, the student participants will be identified into academic classifications based on the required accommodations specified within either their Individual Education Plan (IEP) or other academic plans that include but are not limited to academic 504 plans. These classifications will then identify and assign one of three testing groups for each student. The testing groups are classified by the exam administration method being utilized and are broken down into the following classifications: Paper Based Exam, Paper Based Exam with Auditory Prompts, and Total Auditory/Visual Exam.

Due to the informal nature of the study, parental permission is not obtained for all of the individual participants. All evaluations are considered part of the established curriculum and are not supplementary to the course assessment. However, student participants who will be participating in the oral administration of the exam will be asked to obtain parental permission in order to have their responses recorded for evaluation purposes only. Although all students are not required to obtain parental permission, all names will be removed from assessments for analysis purposes in order to maintain anonymity and each
participant will only be identified by their current academic classification. Each participant will be informed of his or her scores on the assessment.

The researcher recognizes this pilot group will be representative of a limited population sampling based on one specific year’s enrollment in Computer Animation I. Generalization are made based only on the data collected and may not represent all areas or populations.

Procedures

All procedures for the study will coincide with the normal operations of the Computer Animation I class. Prior to the end of the course of study, student participants will be identified and separated into three testing groups based on their academic classification and accommodation needs. The three groups will be tested at three different locations simultaneously in order to fully accommodate the specific assessment needs of the individual participants.

All three testing locations will be given the same components for the students to complete. These components include Matching, Multiple Choice, Sequencing, Fill in the Blank, Tool Identification, Troubleshooting Software Issues, and a Drawing prompt. Each section administered together and is broken down into individual groups of questions and point values. Each participant will be responsible to the same information. Only the testing method will change based on location.

At each testing location, the students will be provided with a testing experience that caters to their unique needs. The following breakdown describes each testing location and administration process.
Testing Location 1 – Paper Based Exam. Student participants will enter the testing area and escorted to their assigned seating location. Each student will be given the testing materials, which includes a testing booklet, pencil, and answer sheet. The participants will then be read the instructions for the exam and given approximately two hours to complete the exam. When the student completes the exam, the testing materials will be collected and the student will be instructed to sit quietly until all of the testing materials have been collected. Once all of the testing materials have been collected, the administrator will place all of the materials into the provided labeled and coded envelope and the materials will be returned to the evaluating instructor.

Testing Location 2 – Paper Based Exam with Auditory Prompts. Student participants will enter the testing area and escorted to their assigned seating location. Each student will be given the testing materials, which includes a testing booklet, pencil and answer sheet. The participants will then be prompted to listen and watch the instructions as they are projected onto a large screen in the front of the testing location. All directions, questions, and prompts will be written on the screen as well as read to the students one question at a time in order to accommodate any limitations presented by the written language prompts provided on the physical exam. Students will be required to record their responses on the answer sheet provided. Exam administrators will have the option of repeating any questions or instructions through the exam configuration and functionality. This exam should take approximately 2 hours to complete. When the student completes the exam, the testing materials will be collected and the student will be instructed to
sit quietly until all of the testing materials have been collected. Once all of the testing materials have been collected, the administrator will place all of the materials into the provided labeled and coded envelope and the materials will be returned to the evaluating instructor.

*Testing Location 3 – Total Auditory/Visual Exam.* Student participants will enter the testing area and escorted to their seating location. Students will also be introduced to their individual proctor or paraeducator. Each student will not need individual testing materials. Instead, each proctor will receive the testing materials, which include a testing booklet, pencil, answer key, labeled cassette tape and tape recorder. As the test begins, the student participants will be prompted to listen to the instructions and the process for the exam will be explained. Each student will be instructed to supply oral answers to each question. The proctor will then write out their responses as well as record their oral responses into the tape recorder. The test administrator will have the opportunity to repeat any questions or instructions as needed. The approximate testing time will be two hours. Students located in testing location 3 may be granted additional time if needed per their documented academic plans. When the student completes the exam, the testing materials will be collected and the student will be instructed to sit quietly until all of the testing materials have been collected. Once all of the testing materials have been collected, the administrator will place all of the materials into the provided labeled and coded envelope and the materials will be returned to the evaluating instructor.
Measurements

Two assessment tools will be utilized during the assessment process, however, the method of obtaining student responses will change based on the assessment mode being administered. All assessments utilized throughout the course of study are based on a points system. All assessments are weighted equally and are typically given values based on the time needed to complete as well as the academic significance of each assessment. Under normal circumstances, written assessments are typically awarded lower point values since they are used as a quick indication of student understanding and project based assessments are typically awarded higher point values due to the time required to complete as well as their overall indication of productivity and progress over the course. However, for this study, the comprehensive exam will have equally distributed point values total a maximum of 165 points where 82 points are designated for written tasks and 83 points are designated for performance-based tasks.

Depending on the form of assessment method being administered, the student participants will be asked to provide their answers differently. The first method includes students who will either only be provided the exam in the paper format or the students who are working with both the paper and audio formats. For both the written and performance-based assessment tasks, a blank line is provided for a student-supplied answer. Once the student has completed the assessment, the answers provided are classified as either correct or incorrect. Each written task is then awarded a specified point value by section. For the final section of the exam, the participant will be asked to draw specific character elements in the provided
boxes. These elements will be scored based on the provided rubric and added to the point totals. The points added for the drawing tasks are included in the 83 points calculated for the performance-based tasks.

The final set of students includes those participants that cannot effectively demonstrate their understanding through written language. Participants with this limitation will listen to the oral prompts and provide verbal responses, which will be recorded by a proctor in a written format and recorded onto a tape for assessment purposes only. The scoring key and rubric will be utilized in order to provide a final score.

Possible Limitations

After preparing the new instruments for assessment that specifically address the concerns of auditory and visual limitations, new limitations must be taken into consideration. First, the classification process for the student participants in this study is solely reliant on the accommodations written into a documented and structured academic plan. In some cases, students are not identified and categorized into the ESE system due to factors such as lack of parental consent for testing or undiagnosed deficiencies. When students are not identified and categorized, their specific accommodations may not be met by the administrative procedures of the study. Unfortunately, due to these uncontrollable factors, this particular limitation may not be a variable that can easily be addressed.

The second limitation that needs to be taken into consideration is the actual administration method utilized for the exams that involve auditory elements. The integration of auditory elements helps to accommodate the needs of students who
may have difficulties with written language. However, they may be distracted with multiple auditory cues or the repetition of questions they have completed. One possible way to avoid this form of distraction would be to administer the exam in a computer lab that is set up with individual stations. If the students have the opportunity to run the exam at their own pace as well as have access to a set of headphones, the test would then provide a completely individualized exam experience for the participant. However, if this administration method were to be utilized, the length of the exam period would need to be extended in order to compensate and, “account for the level of preparation, as well as organization, navigability of the presentation, and media integration,” (Brunner, 2006, p.14) for the exam manipulation.

The third possible limitation suggests that although the auditory and visual needs of ESE students are being addressed through the differentiated assessment methods, the necessity for project-based assessment is still being overlooked and neglected. Granted, the differentiated assessment methods have addressed the need for students to have direct correlative material that utilizes imagery and problem solving strategies, however, the students are still left without the opportunity to demonstrate their actual skills in a real time environment.

Conclusion

After the conclusion of the preliminary pilot study conducted in the spring of 2010, I came to the realization that as an educator my work is never done. This extension of my research reiterates this concept even more. Identifying essential strategies and appropriate modes of assessment will be a constant endeavor that
will require a great deal of personal time and research. With each adjustment of an assessment method, new and unanticipated limitations arise that provide more questions and present more possibilities for revision. Even after revising the assessment instruments to accommodate for previous limitations, there are still more questions that need to be resolved. However, when working in a relatively new art focus area, there are no absolutes. The previous pilot study conducted only represents a small fraction of students who were currently enrolled in a technology based art class and therefore all assumptions made were based solely on preliminary data analysis and observation. With the proposal of this new method, a fresh set of students will have the opportunity to experience a revised form of assessment which in turn will provide more statistically significant results while having the potential to demonstrate higher learning gains in a technology based art classroom.

Following the pilot study, I was undecided on how to proceed with the final assessments for my Computer Animation I course. After revising the assessment instruments in order to accommodate the auditory and visual needs of my students, I feel I have managed to create a more well-rounded assessment that will provide a clearer picture of the actual learning gains of my students.

However, there is still plenty of room for revision. Researchers such as McCullen (1999) describe strategies for creating the perfect assessment by starting with perfection and working your way down, but having gone through 3 revisions thus far, I feel as though this process may still reveal windows of opportunity for even more revision. This is especially true since this proposal only hypothesizes that
the students will demonstrate higher learning gains and until the study is conducted, the research remains hypothetical. It can be assumed that once the study has been conducted and analyzed, the results would provide more insight into the continuation of this research and therefore should not be seen as a means to an end, but rather the results should be considered the next stepping stone in order to increase the quality of assessment being provided to the contemporary student.
References


APPENDIX A

Computer Animation I
Adobe Flash CS3

MATCHING (2 POINTS EACH)
Match the vocabulary word on the left to the appropriate definition on the right and place the corresponding letter on the answer sheet provided.

1. Notification that occurs in response to an action  A. Motion Guide
2. Path drawn to direct a specific directional movement  B. Event
3. Movement created between keyframes  C. Buttons
4. Elements that add interactivity to an animation  D. Vector
5. Image stays smooth when enlarged: no pixels  E. Layer
6. Means to separate different elements of an image  F. Motion Tween

FILL IN THE BLANK (2 POINTS EACH)
Place the appropriate vocabulary word on the answer sheet provided.

1. The programming language used to write the interactive features, primarily used for software and websites is called _____________________.
2. Scenes are visible on the _______________ which is located in the ________________ also known as the work area in Flash.
3. By using the ______________ option, you can lock separate images together onto a single layer.
4. In order to change the size of an object in Flash use the __________________________ tool.
5. A ______________________ is a reusable image, movie, or animation
6. In order to define a starting point for your animation you must first insert a _________.

MULTIPLE CHOICE (1 POINT EACH)
Select the appropriate word that matches the definition provided.

1. The drawings of images that define the type of movement between each key movement or keyframes.
   a. Vector
   b. Buttons
   c. In Betweenes
   d. Event
   e. Scene
2. Action taking place in the Workspace
   a. Scene
   b. Keyframe
   c. Stage
   d. Event
   e. ActionScript
3. Changes the properties of a selected tool or effect
   a. Button
   b. Convert to Symbol
   c. Movieclip
   d. Modifiers
   e. Transform

4. SWF stands for:
   a. Small Web Format
   b. Shockwave Flash
   c. Small Web Flash
   d. Both A & B
   e. Both B & C

5. Converts bitmaps to vectors
   a. Modifiers
   b. Transform
   c. Convert to Symbol
   d. Frame
   e. Motion Guide

6. Reusable pieces of Flash animation consists of more than one graphic or symbol
   a. Motion Tween
   b. Movieclip
   c. Motion Guide
   d. Scene
   e. Event

7. This feature allows you to view multiple frames over each other
   a. Flash Skin
   b. Combine Object
   c. Layers
   d. Grouping
   e. Onion Skin

8. Pixel : Photoshop as __________ : Flash
   a. In Betweens
   b. Button
   c. Symbol
   d. Movieclip
   e. Frame

**SEQUENTIAL ORDER** (1 POINT EACH)
The following section contains sentences that are specific steps of a procedure in Flash. Identify the correct order by numbering each sentence beginning with “1” and moving along until all of the steps have been placed sequentially.

**Fade In**
   ___ Reduce Alpha to 0%
   ___ Create a Motion Tween
   ___ Click the Object
   ___ Create the Object
   ___ In properties menu, change color from NONE to ALPHA
   ___ Click Keyframe #1
   ___ Insert Keyframe on Frame #10
**Zoom Out**
- Insert Motion Tween
- Click the first frame
- Resize image to a larger size
- Insert Keyframe on Frame #10
- Create Object
- Click Free Transform Tool

**Insert a Basic Motion Tween**
- Click in between frames 1 and 10
- Insert keyframe at frame #10
- Select object
- Go to INSERT – TIMELINE – CREATE MOTION TWEEN
- Create Object
- Move object to desired location

**Make an Object Rotate**
- Insert keyframe at frame #10
- In properties box, change the rotate option from AUTO to either CW or CCW
- Create Object
- Click somewhere along the motion tween
- Create Motion Tween

**Creating a Motion Guide**
- Create Object
- Move Object
- Click Frame #1
- Move object center to the endpoint of the line
- Move object center to the beginning point of the line
- Select object
- Draw Line
- Insert Guide Layer
- Insert Motion Tween
- Convert object to a Symbol
- Insert a keyframe at frame #10
- Click the last frame

**Making a Ball Squash While Bouncing**
- Move ball
- Insert Keyframe
- Once the ball is at the ground, insert a keyframe directly after the current keyframe
- Transform the object’s height
- Insert Motion Tween
- Transform object back to original size
- Insert Keyframe
Separating Object Elements onto Individual Layers

- Hit DELETE
- Click OK
- Click EDIT – PASTE IN PLACE
- Click EDIT – COPY
- Create New Layer
- Click MODIFY – CONVERT TO SYMBOL
- Select the portion of the object you wish to copy

Setting Up Pivot Points

- Move Pivot Point to Desired Location
- Click MODIFY – CONVERT TO SYMBOL
- Select Object
- Select Free Transform Tool

Inserting a Picture

- Select your file and click import
- Click IMPORT – IMPORT TO STAGE
- Click FILE

TROUBLESHOOTING FLASH ISSUES (4 POINTS EACH)
Please use the provided pictures to answer the questions below. Your answers do not have to be long, but please answer them as thoroughly as possible.

Using the image above, please answer the following questions:

1. Why does this error message appear on your file?
2. What can be done to prevent this error message?
Using the image above, please answer the following questions:

3. Is this tween functional?
4. Why or Why Not?

Using the image above, please answer the following question:

5. This motion guide will **NOT** work. Why?

Using the image above, please answer the following questions:

6. With the drawing above, would you be able to color in the mouth without coloring in the body?
7. Why or Why Not?
8. Has the most recently added information been saved onto this file?
9. How can you tell?

10. What is one reason why the keyframe on frame #20 is blank?

11. Where would you click to get back to your main stage in the Workspace?
IDENTIFY THE TOOLS (2 POINTS EACH)
For the following images please provide both the name of the tool and the function it performs. Spaces for your answers are provided on your answer sheet.
CHARACTER DRAWING (5 POINTS EACH)
Using the demonstration given during class, please illustrate the following three character components. These components should include BOTH the geometric guide shapes as well as the actual drawn component.

Bottom View of a Human Foot (Bare Foot)

Side View of a Human Foot (Bare Foot)

Front View of a Human Foot (Wearing Flip Flops)
APPENDIX B

Computer Animation I
Answer Sheet

Name: ____________________________________________________________

Period: __________________________

Please write your answers below in the spaces provided.

MATCHING
1. ______  4. ______
2. ______  5. ______
3. ______  6. ______

FILL IN THE BLANK
1. ______________________________________________________________
2. ______________________________________________________________  _________________________________________________________
3. ______________________________________________________________
4. ______________________________________________________________
5. ______________________________________________________________
6. ______________________________________________________________

MULTIPLE CHOICE
1. ______  5. ______
2. ______  6. ______
3. ______  7. ______
4. ______  8. ______

SEQUENTIAL ORDER
Fade In
_____ Reduce Alpha to 0%
_____ Create a Motion Tween
_____ Click the Object
_____ Create the Object
_____ In properties menu, change color from NONE to ALPHA
_____ Click Keyframe #1
_____ Insert Keyframe on Frame #10
Zoom Out
_____ Insert Motion Tween
_____ Click the first frame
_____ Resize image to a larger size
_____ Insert Keyframe on Frame #10
_____ Create Object
_____ Click Free Transform Tool

Insert a Basic Motion Tween
_____ Click inbetween frames 1 and 10
_____ Insert keyframe at frame #10
_____ Select object
_____ Go to INSERT – TIMELINE – CREATE MOTION TWEEN
_____ Create Object
_____ Move object to desired location

Make an Object Rotate
_____ Insert keyframe at frame #10
_____ In properties box, change the rotate option from AUTO to either CW or CCW
_____ Create Object
_____ Click somewhere along the motion tween
_____ Create Motion Tween

Creating a Motion Guide
_____ Create Object
_____ Move Object
_____ Click Frame #1
_____ Move object center to the endpoint of the line
_____ Move object center to the beginning point of the line
_____ Select object
_____ Draw Line
_____ Insert Guide Layer
_____ Insert Motion Tween
_____ Convert object to a Symbol
_____ Insert a keyframe at frame #10
_____ Click the last frame

Making a Ball Squash While Bouncing
_____ Move ball
_____ Insert Keyframe
_____ Once the ball is at the ground, insert a keyframe directly after the current keyframe
_____ Transform the object’s height
_____ Insert Motion Tween
_____ Transform object back to original size
_____ Insert Keyframe
Separating Object Elements onto Individual Layers

- Hit DELETE
- Click OK
- Click EDIT – PASTE IN PLACE
- Click EDIT – COPY
- Create New Layer
- Click MODIFY – CONVERT TO SYMBOL
- Select the portion of the object you wish to copy

Setting Up Pivot Points

- Move Pivot Point to Desired Location
- Click MODIFY – CONVERT TO SYMBOL
- Select Object
- Select Free Transform Tool

Inserting a Picture

- Select your file and click import
- Click IMPORT – IMPORT TO STAGE
- Click FILE

IDENTIFY THE TOOLS

1. _______________________________________________________
2. _______________________________________________________
3. _______________________________________________________
4. _______________________________________________________
5. _______________________________________________________
6. _______________________________________________________
7. _______________________________________________________
8. _______________________________________________________
9. _______________________________________________________
10. _______________________________________________________ 
11. _______________________________________________________ 

TROUBLESHOOTING FLASH ISSUES

1. __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________

2. __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________

3. __________________________________________________________________________

4. __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________

5. __________________________________________________________________________
   __________________________________________________________________________

6. __________________________________________________________________________

7. __________________________________________________________________________

8. __________________________________________________________________________

9. __________________________________________________________________________

10. __________________________________________________________________________
   __________________________________________________________________________

11. __________________________________________________________________________
   __________________________________________________________________________

BONUS QUESTION (5 POINTS)
What is the golden rule of thumb when doing any work on the computer?

______________________________________________________________________________
______________________________________________________________________________
APPENDIX C

Computer Animation I
Answer Key

Name: ______________________________________________________

Period: _____________________________

Please write your answers below in the spaces provided.

MATCHING
1. B  4. C
2. A  5. D
3. F  6. E

FILL IN THE BLANK
1. ACTIONSCRIPT
2. STAGE / WORKSPACE
3. GROUP
4. TRANSFORM
5. SYMBOL
6. KEYFRAME

MULTIPLE CHOICE
1. C  5. C
3. D  7. E
4. B  8. E

SEQUENTIAL ORDER
Fade In
____7____ Reduce Alpha to 0%
____3____ Create a Motion Tween
____5____ Click the Object
____1____ Create the Object
____6____ In properties menu, change color from NONE to ALPHA
____4____ Click Keyframe #1
____2____ Insert Keyframe on Frame #10
ADDRESSING LIMITATIONS

**Zoom Out**
1. Insert Motion Tween
2. Click the first frame
3. Resize image to a larger size
4. Insert Keyframe on Frame #10
5. Create Object
6. Click Free Transform Tool

**Insert a Basic Motion Tween**
5. Click inbetween frames 1 and 10
2. Insert keyframe at frame #10
3. Select object
6. Go to INSERT – TIMELINE – CREATE MOTION TWEEN
1. Create Object
4. Move object to desired location

**Make an Object Rotate**
2. Insert keyframe at frame #10
5. In properties box, change the rotate option from AUTO to either CW or CCW
1. Create Object
4. Click somewhere along the motion tween
3. Create Motion Tween

**Creating a Motion Guide**
1. Create Object
5. Move Object
7. Click Frame #1
12. Move object center to the endpoint of the line
10. Move object center to the beginning point of the line
4. Select object
9. Draw Line
8. Insert Guide Layer
6. Insert Motion Tween
2. Convert object to a Symbol
3. Insert a keyframe at frame #10
11. Click the last frame

**Making a Ball Squash While Bouncing**
6. Move ball
5. Insert Keyframe
1. Once the ball is at the ground, insert a keyframe directly after the current keyframe
2. Transform the object’s height
7. Insert Motion Tween
4. Transform object back to original size
3. Insert Keyframe
Separating Object Elements onto Individual Layers

___3___ Hit DELETE
___7___ Click OK
___5___ Click EDIT – PASTE IN PLACE
___2___ Click EDIT – COPY
___4___ Create New Layer
___6___ Click MODIFY – CONVERT TO SYMBOL
___1___ Select the portion of the object you wish to copy

Setting Up Pivot Points

___4___ Move Pivot Point to Desired Location
___2___ Click MODIFY – CONVERT TO SYMBOL
___1___ Select Object
___3___ Select Free Transform Tool

Inserting a Picture

___3___ Select your file and click import
___2___ Click IMPORT – IMPORT TO STAGE
___1___ Click FILE

IDENTIFY THE TOOLS

12. SELECTION TOOL

13. FREE TRANSFORM TOOL

14. LASSO TOOL

15. TEXT TOOL

16. LINE TOOL

17. CUSTOM SHAPE TOOL (SHAPE TOOL)

18. PENCIL TOOL

19. PAINT BRUSH TOOL

20. PAINT BUCKET TOOL

21. EYEDROPPER TOOL

22. FILL COLOR SELECTION TOOL
TROUBLESHOOTING FLASH ISSUES

12. ON THE FILE YOU ARE TRYING TO TRANSFER, MULTIPLE SYMBOLS HAVE THE SAME NAME IN THE LIBRARY
13. RENAME THE SYMBOLS PRIOR TO TRANSFERING A FILE (OR NAME SYMBOLS AS THEY ARE CREATED TO AVOID DUPLICATES)
14. NO
15. THE LAST KEYFRAME IS BLANK
16. THE GUIDE LINE HAS BEEN DRAWN ON THE WRONG LAYER (OR THE GUIDE LAYER IS BLANK)
17. NO
18. THE MOUTH IS NOT COMPLETELY CLOSED
19. NO
20. THE ASTERISK NEXT TO THE FILE NAME INDICATES THAT NEW INFORMATION HAS BEEN ADDED TO THE FILE THAT HAS NOT BEEN SAVED. THE ASTERISK WILL DISAPPEAR WHEN THE FILE IS SAVED.
21. THE KEYFRAME WAS CREATED BEFORE THE OBJECT (OR THE INFORMATION ON THE KEYFRAME WAS DELETED)
22. SCENE 1 (OR BLUE ARROW NEXT TO SCENE 1)

CHARACTER DRAWING
Please follow the rubric below for the scoring of the drawing prompt:

• 5 POINTS: Drawing includes both correctly proportioned geometric shapes and organic character lines. All elements of the foot are included and work is clean and shapes are recognizable.
• 4 POINTS: Drawings include both geometric and organic character lines that are mostly proportioned correctly. Most of the elements of the foot are included and work is mostly clean and most shapes are recognizable.
• 3 POINTS: Drawings include both geometric and organic character lines that are somewhat proportioned correctly. Some of the elements of the foot are included and some of the shapes are recognizable.
• 2 POINTS: Several elements of the drawings are missing, one of the line forms are completely missing and not all of the elements are recognizable.
• 1 POINT: Most of the elements are missing from the drawing. Very few elements are recognizable and no proportions are correct.
• 0 POINTS: Drawings are missing completely

*PLEASE SEE THE DRAWING ON THE NEXT PAGE FOR VISUAL CUES FOR GRADING

BONUS QUESTION (5 POINTS)
What is the golden rule of thumb when doing any work on the computer?

SAVE AND SAVE OFTEN
CHARACTER DRAWING (5 POINTS EACH)

Using the demonstration given during class, please illustrate the following three character components. These components should include BOTH the geometric guide shapes as well as the actual drawn component.

**Bottom View of a Human Foot (Bare Foot)**

**Side View of a Human Foot (Bare Foot)**

**Front View of a Human Foot (Wearing Flip Flops)**