



CENTER FOR
VITAL LONGEVITY
THE SCIENCE OF THE AGING MIND

UTD
THE UNIVERSITY OF TEXAS AT DALLAS

INTRODUCTION

In 2019, The Center for Vital Longevity at the University of Texas at Dallas conducted a research study on the cognitive benefits of learning photography in older adults. The name of the program was the engAGE Study, and was created by Dr. Denise Park, Director of Research, Center for Vital Longevity.

Aim 1: The goal of the study was to see if by learning a new skill, in this case digital photography, it would lead to improved cognition to a certain population of older adults. The classes were developed to include a variety of teaching and learning methods that would be appropriate for this targeted audience.

Aim 2: There were three different types of classes created under this study. Two traditional in-classroom modules, and one online format. The in-classroom modules were divided further by the type of camera to be used. The first being a Digital Single Lens Reflex (DSLR) camera for the Picture This classes and the second being a less advanced camera colloquially known as a “point-and-shoot” for the In Focus classes. The online portion was developed as a response to sheltering-in-place directives to combat COVID-19. The online classes were less formal and not as stringent as the in-classroom course of study. These classes incorporated learning for DSLR and “point-and-shoot” cameras as well as mobile phones, specifically iPhones.

Aim 3: The class topics included: history of photography, composition, photography exposure basics, black & white photography, portraiture, still life photography, nature, lifestyle, travel, documentary, studio, and many more. The in-classroom sessions were 2 ½ hours in length, with the online sessions being one hour in length. Additionally, the instructors were available before and after class and offered out-of-class tutoring sessions if the students requested additional help.

Aim 4: The teaching products that were created from this study are now being made available to the public to use, free of charge. The following material includes the curriculum grid, presentations, equipment recommendations and associated forms that could be used to conduct a class on photography.

Aim 5: Each section is a different class starting with Picture This, In Focus, and finally the Online Classes. This packet is designed to meet the needs of the audience you are teaching and can be presented as different stand-alone sections.

The following are the individual class lesson plans and presentations. Feel free to modify the material to suit needs of your program.

PICTURE THIS

Curriculum Development The curriculum was based on the concept of stimulating the cognitive abilities for older adults. The information learned would likely be equivalent to a high school photography class. A DSLR camera was used for this class, so much of the beginning of the class centered on exposure basics and how the different settings affects a photograph. The time allotted for classes, lab time, and homework were specific to the needs of the grant. However, time adjustments for these components can be made to fit your needs.

Teaching Method The teaching method was a traditional classroom setting with accompanying slideshows, open discussion, live demonstrations, as well as in-class student exercises.

Instructors assigned homework and proposed challenges at the end of class to the participants to encourage practice of the methods and techniques they had been taught. The students were encouraged to share with the instructors and fellow students any photos they had taken, during lab time and the following class.

Classroom Environment The classroom environment was a traditional setting with designated learning spaces. The classes were delivered in person. Each instructor taught in person, twice a week. The instructors taught with the presentations, worked one on one with participants during lab time, live demonstrations, extra help sessions, and makeup classes.

The students had individual workstations, including desktop computers which they could use to edit photos. Presentations were made at the front of the classroom on a projection screen. There was also a dedicated lab space that had workstations that had desktop computers as well so students could do homework while another class was in session.

The class met twice a week, with a day designated for lab work. Additionally, the classes also took topic related field trips to approved locations. These locations correlated with a particular week's topics. The majority of field trip locations were free of charge, however, some locations did charge entry fees.

A common area (large open space) was available for live demonstrations and to set up miniature studios for different photography subjects. The area was also used by the students

for eating lunch a relaxing outside of class. In the common area was a bookcase of photography literature

Students were encouraged to practice the techniques taught out of class at home. Every class assigned homework or an extra challenge to allow students to practice the techniques.

Equipment Needs The following is a list of recommended equipment and supplies to conduct the class. The list can be modified to fit your needs. All of the items were supplied as part of the project, and no costs were incurred by the students. However, some students did elect to purchase some the items for their own personal use.

- Cameras
 - DSLR – a Nikon D3500 was used for the DSLR classes
 - Camera strap & lens cap
 - Camera bag
- Photography background
 - White seamless paper
 - Background stands
- Studio Lighting (optional)
 - 200 watt second lights (studio flash), or
 - Speedlight flashes
 - Umbrella modifiers
 - Light stands
 - Trigger
- Tripods (optional)
- Computers – Apple desktop computers were used, however, laptops or PCs could be used
- Printers – Both photo printers and standard office printers were used.
- Photo paper – 8.5x11 inch photo paper is recommended
- Ink – photo and general printing
- Software
 - Adobe Suite or other alternatives
 - Lightroom
 - Photoshop
 - Microsoft Office suite, or equivalent
- Flash drives & SD cards
- USB 3.0 & 64gb
 - At least 32gb for SD card
- Screen/lens cleaning wipes

- LCD projector & screen
- HDMI cable(s)
- Labeling supplies
- Bulletin & dry erase boards
- General office supplies
- Reference material (books & magazines)
- Folder - for handouts & student work
- Frame - for one photo in gallery show
- Portfolio - for printed work

Forms The following link will allow access to the forms used during class. These include: attendance, equipment check out, field trip waivers, and photo releases. **[INSERT LINK TO FORMS]**

Curriculum Grid The following table is the curriculum grid for the Picture This class. The grid serves as the lesson plan for the entire 14 week period. Modification of the grid may be necessary to address the objectives of your course. Contained in the grid is a link to that week's class presentation.

Picture This						
Week	Theme	Lesson	Hands On (in class)	Assignment (at home)	Presentation	Notes
1	Intro to course & Intro to DSLR	<ul style="list-style-type: none"> - Student & Instructor Introductions - Class rules & Lab time schedule - How to fill out attendance sheet - Course goals & Overview - Gear checkout - Lecture/Discussion about definition of photography & purpose, what a DSLR is, & history of photography 	Demonstration of DSLR use. How to: <ul style="list-style-type: none"> - insert SD card & battery - find & use the power & shutter button - Format SD card - Change lens 	Take at least 20 photographs & include a written blurb explaining chosen subject matter.	1. Week 1 Class 1	
	Intro to DSLR & Intro to Composition	<ul style="list-style-type: none"> - Present & discuss student HW from previous class - Photography safety overview - Lecture/Discussion about: <ul style="list-style-type: none"> - 3 composition techniques (rule of thirds, fill the frame & perspective) - manual mode - ISO, shutter speed, & aperture - exposure triangle - reviewing & deleting pictures in camera - Digital noise 	Demonstration of how to change ISO, shutter speed & aperture in camera. How to review & delete pictures in camera. Students practiced in the class area & directly outside the building. Classwork: <ul style="list-style-type: none"> - Take 20 pictures 	Take the following pictures. <ul style="list-style-type: none"> - 10 indoor photos - low, high ISO - 10 outdoor photos - low, high ISO - 10 of moving subjects with a fast & slow shutter speed - 5 subjects with a large & 	2.Week 1 Class 2	

Picture This						
Week	Theme	Lesson	Hands On (in class)	Assignment (at home)	Presentation	Notes
			indoors & 20 pictures outdoors - while practicing good use of ISO, aperture & shutter speed.	small f.stop		
2	Intro to Mac, Intro to Flashdrive & Intro to Lightroom	<ul style="list-style-type: none"> - Present & discuss student HW from previous class - Lecture/Discussion about: <ul style="list-style-type: none"> - intro to mac & physical overview - how to insert a flashdrive & necessary shortcuts - intro to Lightroom (how to do the basics) 	<p>Demonstration of how to power on the mac, where to insert flashdrive & SD card, how to open the flashdrive, make folders & rename it. How to launch lightroom, create a new catalog, how to import photos, and editing basics.</p> <p>Classwork:</p> <ul style="list-style-type: none"> - Set up folders in your flashdrive & rename it - Edit the photographs 	<ul style="list-style-type: none"> - Create lightroom catalog on flashdrive, then import images from SD card & edit. - Take 10 pictures using the 3 different composition techniques we covered last week. Then take 10 more choosing from any on the composition 	Week 2 Class 1	

Picture This						
Week	Theme	Lesson	Hands On (in class)	Assignment (at home)	Presentation	Notes
			from last classes homework & present	handout.		
	Lightroom basics & Intro to tripod	<ul style="list-style-type: none"> - Present & discuss student HW from previous class - Lecture/Discussion about: <ul style="list-style-type: none"> - self portraits - use of tripod & self-timer - environmental portraits - how to format SD card - Lightroom basics (delete & export) - setting SD to RAW file & what that means 	<p>Demonstration of how to set up tripod & self-timer, format SD card & set to RAW file format, Lightroom basics, and how to take a self-portrait.</p> <p>Classwork: Discuss with table partners: what a work related environmental portrait would be for a firefighter, musician & mechanic.</p> <p>what your environmental portrait would look like.</p> <p>what the difference is between a self-portrait & environmental portrait.</p>	<p>Take 10 of each: environmental & self portraits</p> <p>Bring in at least 3 peoples emails.</p> <p>Optional (extra challenge)</p> <p>Using the handout about fireworks photography, photograph the fireworks over the holiday</p> <p>Watch "Finding Vivian Maier Documentary" (on Netflix & Youtube)</p>	Week 2 Class 2	

Picture This

Week	Theme	Lesson	Hands On (in class)	Assignment (at home)	Presentation	Notes
3	Review & Intro to email	<ul style="list-style-type: none"> - Present & discuss student HW from previous class - Review how to format memory stick, to format SD to RAW, & review information from the last 2 weeks - Lecture/Discussion about: <ul style="list-style-type: none"> - how to create a gmail account, compose an email & attach an image to an email. 	<p>Demonstration of how to format SD card & format to RAW file.</p> <p>Classwork: take 20 minutes to fully edit and export and image. Then attach the image to an email. Send image to 3 different people.</p>	<p>Email Instructor one fully edited image. Be prepared to present image Week 4 Class 1.</p> <p>Meet at the Texas Discovery Gardens next class for the fieldtrip.</p>	Week 3 Class 1	
	Field Trip	<p>Field trip to the Texas Discovery Garden</p> <p>Nature Photography Theme</p>	<p>Classwork: Photography Scavenger hunt</p>	<p>Edit images from the field trip</p>	Week 3 Class 2	
4	Review & Classwork time	<ul style="list-style-type: none"> - Present & discuss student HW from previous class - Review how to launch Lightroom, Lightroom shortcuts, how to export images from Lightroom, & Mac keyboard shortcuts - One on one classwork time with Instructors 	<p>Classwork: opportunity to work one on one with Instructors to practice importing, editing and exporting images taken on field trip</p>	<p>Email Instructor one fully edited image to be presented & discussed next class</p>	Week 4 Class 1	

Picture This						
Week	Theme	Lesson	Hands On (in class)	Assignment (at home)	Presentation	Notes
	HW Discussion & Intro to Color Theory	<ul style="list-style-type: none"> – Present & discuss student HW from previous class – Lecture/Discussion about: color theory (primary, secondary, complimentary color schemes) 	Classwork: continue editing & exporting images from last class	<p>Take 30 new images (10 each) focusing on complimentary, secondary & primary colors</p> <p>Write a short blurb on how color can effect photography</p>	Week 4 Class 2	
5	Intro to Travel Photography & how to change lens	<ul style="list-style-type: none"> – Present & discuss student HW from previous class – Lecture/Discussion about: what is and when & how to use a telephoto lens. Intro to Travel Photography, different types of Travel Photography, & look at supplementary Week 5 Class 1 Travel Photography presentation for examples. 	<p>Demonstration of how to change lens & how to use it</p> <p>Classwork: practice changing lens with table partner. Then go outside the building with the Instructors & practice using the telephoto lens</p>	<p>Look up a Travel Photographer that inspires you. Try to imitate the photographer's use of light, composition techniques, and camera settings. Write a short blurb about what was difficult about the assignment and what you enjoyed. Then email the image & blurb to an Instructor. Be prepared to present & discuss in the next class.</p>	Week 5 Class 1	

Picture This

Week	Theme	Lesson	Hands On (in class)	Assignment (at home)	Presentation	Notes
	Fieldtrip	Field trip to Frontiers of Flight Museum Travel Photography Theme	Classwork: Photography Scavenger hunt	Import and start editing images from the field trip	Week 5 Class 2	
6	Intro to Light & Reflectors	<ul style="list-style-type: none"> – Week 5 Recap – Present & discuss student HW from previous class – Lecture/Discussion about: what reflectors are & how to use them, how to bounce light, why light is important to photography (quality, color, & direction etc) and Lifestyle Photography – what it is & supplementary Week 6 Class 1 presentation for examples 	<p>Demonstration of how to use reflectors to bounce light using a studio set up</p> <p>Classwork: practice using reflectors on your table partners</p>	Take 5 photos each of: cool light, warm light, found light, and photos to edit the color in post. Respond to writing prompt about shadow.	Week 6 Class 1	
	Fieldtrip	Field trip to the Dallas Farmer's Market Lifestyle Photography Theme	Classwork: Photography Scavenger hunt	Import and start editing images from the field trip	Week 6 Class 2	
7	Advanced Lightroom Editing & Exporting	<ul style="list-style-type: none"> – Week 6 Recap – Present & discuss student HW from previous class 	Demonstration of how to keyword images in Lightroom, how to rename files when	Respond to writing prompt	Week 7 Class 1	

Picture This						
Week	Theme	Lesson	Hands On (in class)	Assignment (at home)	Presentation	Notes
		<ul style="list-style-type: none"> – Lecture/Discussion about: advanced Lightroom editing (BW, red eye tool, and more), how to keyword, export review and renaming files when exporting. 	<p>exporting & review exporting.</p> <p>Classwork: Email instructor 2 images for them to print for in class critique next class.</p>	Optional (Extra Challenge) watch the Cig Harvey video		
	Photo Critique	<ul style="list-style-type: none"> – Discuss writing prompt from HW – Present & discuss printed student photos. – Discussion prompted by questions in presentation 	N/A	Choose 10 images for the portfolio project for next week, by keywording them in Lightroom.	Week 7 Class 2	
8	Intro to Printing	<ul style="list-style-type: none"> – Week 7 Recap – Lecture/Discussion about: printing from Lightroom and introduction to the Portfolio Project 	<p>Demonstration of how to print from Lightroom.</p> <p>Classwork: partner up with the table partner and practice walking through all the steps of printing, when finished call over the instructor to finalize the printing.</p>	Print 2-4 images for the Portfolio Project and write the corresponding artist statements.	Week 8 Class 1	

Picture This						
Week	Theme	Lesson	Hands On (in class)	Assignment (at home)	Presentation	Notes
			And finish editing the 10 images selected for the project, start printing the images & writing the corresponding artist statements.			
	Printing Review & Portfolio Project Workday	<ul style="list-style-type: none"> – Review Lightroom printing process & Portfolio Project 	<p>Demonstration of how to print from Lightroom, as a review.</p> <p>Classwork: Print 5-8 images for the Portfolio Project and write the corresponding artist statements.</p>	Print the remaining images for the Portfolio Project and write the corresponding artist statements.	Week 8 Class 2	
9	Portfolio Project Presentations & Printing Review	<ul style="list-style-type: none"> – Review Lightroom printing process – Students present & discuss their Portfolio Projects using discussion questions in the presentation 	N/A	<p>Email one image to the instructors to be printed for a print swap.</p> <p>Be prepared to model for your table</p>	Week 9 Class 1	

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Week	Theme	Lesson	Hands On (in class)	Assignment (at home)	Presentation	Notes
				partners next class. Wear fun clothes.		
	Intro to Portrait Photography & the Studio	<ul style="list-style-type: none"> - Print Swap - Review all material up to Week 9 - Lecture/Discussion about: portrait photography and studio gear. 	<p>Demonstration of how to set up a photography studio & gear.</p> <p>Classwork: partner up with table partners and take turns adjusting the lights & modeling for portraits</p>	Take 10 different portraits. 5 of the images need to be taken in the studio. Signup is available if students want to bring in family or friends during lab time.	Week 9 Class 2	
10	Intro to Still Life Photography & Studio Time	<ul style="list-style-type: none"> - Review how to use and set up studio gear - Lecture/Discussion about: still life photography & composition techniques - Studio time 	<p>Demonstration of how to set up a photography studio & gear & how to create interesting compositions with props.</p> <p>Classwork: partner up with table partners and take turns adjusting the lights, adjusting the composition & taking the images.</p>	<p>Import, edit & export still life photography images.</p> <p>Make a folder of 20 images for Week 11 Project.</p> <p>Take 10 photos focusing on color or lack of color, in response to a song.</p>	Week 10 Class 1	

Picture This						
Week	Theme	Lesson	Hands On (in class)	Assignment (at home)	Presentation	Notes
			Take 10 photos at each stations, a total of 30 images – using the 3 different studios provided.			
	Fieldtrip	Field trip to the Nasher Sculpture Center & The Crow Museum of Asian Art Still life & Portrait Photography Theme	Classwork: Photography Scavenger hunt	Import and start editing images from the field trip	Week 10 Class 2	
11	Intro to Keynote & Power Point & Photo Essay Project	<ul style="list-style-type: none"> – Lecture/Discussion about: Keynote & Power Point – Photo Essay Project Outline & requirements 	<p>Demonstration of how to make a new slideshow in Keynote, add photos & text etc.</p> <p>Classwork: partner up with table partners and help each other create a keynote presentation and get started adding photos & text.</p>	<p>Finish Photo Essay. Email the finished PDF to an Instructor & 3 other family members or friends.</p> <p>Start thinking about final project.</p>	Week 11 Class 1	
	In class work time	<ul style="list-style-type: none"> – Review how to use Keynote & Power Point 	Classwork: continue working on Photo Essay Project	Finish Photo Essay. Email the finished PDF to an Instructor	Week 11 Class 2	

Picture This						
Week	Theme	Lesson	Hands On (in class)	Assignment (at home)	Presentation	Notes
		<ul style="list-style-type: none"> – Review Photo Essay Project Outline & requirements 		& 3 other family members or friends. Start thinking about final project.		
12	Intro to Black & White Photography	<ul style="list-style-type: none"> – Lecture/Discussion about: Black & White Photography – 8 reasons to shoot in BW, Tone & Tonal Range, Why color photography is important, how to edit photos in BW in Lightroom & how to set DSLR to BW. – Supplementary BW Photography Presentation 	Demonstration of how to: change DSLR to BW and how to edit in BW in Lightroom Classwork: partner up with table partners & practice changing the DSLR to BW & back to color	Take 15 photos around your house, in BW mode on your DSLR. Practice photographing indoors vs. Outdoors, in shadow vs. In direct light etc. Take 8 photos representing 1 of the 8 reasons to photograph in Black & White, followed by a short blurb.	Week 12 Class 1	
	Fieldtrip	Field trip to the Dallas Museum of Art Black & White Photography Theme	Classwork: Photography Scavenger hunt	Import and start editing images from the field trip	Week 12 Class 2	

Picture This						
Week	Theme	Lesson	Hands On (in class)	Assignment (at home)	Presentation	Notes
13	Photo Essay Presentation	<ul style="list-style-type: none"> – Present Photo Essays – Introduce Final Project – Finish getting flash drive backed up 	<p>Classwork: Finish editing & exporting the images from the DMA</p> <p>Finish exporting/backing up the flashdrive</p> <p>Start the final project</p>	<p>Work on Final Project and finish backing up flash drive</p>	Week 13 Class 1	
	Photo Essay Presentation	<ul style="list-style-type: none"> – Finish presenting Photo Essays – Continue Final Project – Finish getting flash drive backed up 	<p>Classwork: Finish editing & exporting all images from Lightroom</p> <p>Finish exporting/backing up the flash drive</p> <p>Finish the final project</p>	<p>Finish printing & framing photo for the Gallery Show</p> <p>Email & Print Photo Summary</p> <p>Finish Exporting images from Lightroom</p> <p>Finish copying Engage Flashdrive to backup external</p> <p>Bring in all gear borrowed for the class.</p>	Week 13 Class 2	

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Week	Theme	Lesson	Hands On (in class)	Assignment (at home)	Presentation	Notes
14	Framed Photo & Summary Presentation	<ul style="list-style-type: none"> – turn in camera, charger, sd card, flashdrive etc – Present framed photo & written summary – Finish getting flashdrive backed up 	<p>Classwork: Finish editing & exporting all images from Lightroom</p> <p>Finish exporting/backing up the flashdrive</p> <p>Finish everything for the Gallery Show</p>	<p>Finish printing & framing photo for the Gallery Show</p> <p>Finish Exporting images from Lightroom</p> <p>Finish copying Engage Flashdrive to backup external</p>	Week 14 Class 1	
	Gallery Show	<ul style="list-style-type: none"> – Enjoy the gallery show (framed and hung photo, photo summary, photo portfolios etc) 	N/A	N/A	Week 14 Class 2	