

**MISSOURI DIVISION OF ELEMENTARY & SECONDARY EDUCATION WEBINAR  
UNIVERSAL DESIGN FOR LEARNING  
HOSTS: MEGAN FREEMAN DR.NANCY AGUINAGA  
THURSDAY, MARCH 19, 2013**

MS. FREEMAN: MY NAME IS MEGAN FREEMAN, AND I'M AN ASSISTANT DIRECTOR IN SPECIAL EDUCATION EFFECTIVE PRACTICES. TODAY'S WEBINAR IS IN LISTEN-ONLY MODE WITH TEXT CHAT. WE WOULD WELCOME AND ENCOURAGE QUESTIONS RELATED TO OUR TOPIC. YOU MAY ASK QUESTIONS BY TYPING IN THE Q AND A WINDOW AND THEY WILL BE ANSWERED. YOU WILL FIND THE RECORDING AND ACCOMPANYING PRESENTATION ON THE WEBINAR SECTION OF THE DESE WEBSITE. THE URL FOR THE DESE WEBINAR PAGE IS LISTED ON THE SCREEN FOR REFERENCE. AT THIS TIME I WOULD LIKE TO INTRODUCE OUR PRESENTER FOR TODAY'S WEBINAR ON UDL, DR. NANCY AGUINAGA. SHE TAUGHT AT THE UNIVERSITY OF SOUTHERN INDIANA AND THE UNIVERSITY OF CENTRAL FLORIDA. DR. AGUINAGA ATTENDED AND WORKED AT HARVARD GRADUATE SCHOOL OF EDUCATION ON UNIVERSAL DESIGN FOR LEARNING FOR THREE YEARS WORKING WITH EDUCATORS FROM AROUND THE WORLD INTRODUCING UDL. SHE IS A FORMER TEACHER OF HIGH SCHOOLS STUDENTS WITH VARYING EXCEPTIONALITIES PREDOMINANTLY SEVERELY AND EMOTIONALLY DISTURBED AND MIDDLE SCHOOL STUDENTS WITH AUTISM SPECTRUM DISORDER. DR. AGUINAGA: HELLO. MY NAME IS NANCY AGUINAGA. I'M VERY HAPPY TO BE TALKING WITH YOU ABOUT UNIVERSAL DESIGN FOR LEARNING. MEGAN SHARED A LITTLE BIT ABOUT MY BACKGROUND AT THE HIGHER EDUCATION LEVEL AND ALSO WORKING WITH K-12 STUDENTS. I TAUGHT MATH AND SCIENCE AT THE HIGH SCHOOL LEVEL AND ALTERNATIVE ED CENTER AND SELF-CONTAINED KIDS WITH ASD AT THE MIDDLE SCHOOL LEVEL. THE FOCUS FOR ME IS REALLY ABOUT THE EXTREME COGNITIVE NEEDS ALL THE WAY UP TO THE GIFTED AND TALENTED KIDS, AND I HAD MY STRUGGLES WORKING WITH BOTH ENDS OF THE SPECTRUM. SO WHEN I WAS INTRODUCED TO THE CONCEPT OF UDL, THE LIGHT BULB WENT OFF FOR ME. AND I WAS FORTUNATE ENOUGH TO BE INTRODUCED TO DAVID ROSE AND GRACE MAYO AT THE HARVARD GRADUATE SCHOOL AND REALLY CAME TO FALL IN LOVE WITH UNIVERSAL DESIGN FOR LEARNING. WHAT I WOULD LIKE TO DO FIRST IS JUST GO OVER THE GOALS OF THE WEBINAR. SO WHEN WE TALK ABOUT THE GOALS, FIRST ONE BEING THE ACTING FRAMEWORK FOR INSTRUCTIONAL DESIGN. SO WHEN WE TALK ABOUT UDL, WE'RE TALKING ABOUT A CURRICULUM FRAMEWORK. WE'RE NOT TALKING ABOUT A SPECIFIC INTERVENTION. THE NEXT THING IS TALKING ABOUT THE PRINCIPLES OF UDL AND THEN IDENTIFYING WAYS THAT WE CAN PROVIDE ACCESS TO THE GENERAL ED CURRICULUM FOR ALL AND THEN ULTIMATELY DEVELOPING AN ACTION PLAN. IF YOU ARE ABLE TO GIVE ME ON A SCALE OF ONE TO FIVE WHAT YOU WOULD SAY YOUR AWARENESS OF UDL IS, YOUR IMPLICATION WITH THE UDL PRINCIPLES. SO ONE BEING THIS IS MY FIRST INTRODUCTION TO UDL AND FIVE BEING I'M VERY FAMILIAR WITH THE PRINCIPLES OF UDL AND HOW TO EMBED THOSE PRINCIPLES IN MY TEACHING. IF YOU COULD JUST TYPE THAT IN THE CHAT BOX FOR ME RIGHT NOW, THAT WOULD BE GREAT. OKAY. ALL RIGHT. SO WE HAVE QUITE A FEW ONES AND TWO AND A THREE. SO NEXT WE'RE GOING TO TALK ABOUT THE ORIGIN OF UNIVERSAL DESIGN ORIGINATING FROM MOVEMENT IN ARCHITECTURE. THE ADA OR

THE AMERICANS WITH DISABILITIES ACT OF 1990 AND THE CIVIL RIGHTS LAW THAT MANDATED INDIVIDUALS WITH DISABILITIES COULD NOT BE DISCRIMINATED AGAINST. SO THIS INCLUDED A SECTION THAT NO INDIVIDUAL MAY BE DISCRIMINATED AGAINST ON THE BASIS OF DISABILITY WITH REGARDS TO THE FULL AND EQUAL ENJOYMENT OF GOODS OR SERVICES, FACILITIES IN ANY -- SO IN THINKING ABOUT THE NEEDS OF THE BROADEST POSSIBLE RANGE OF USERS FROM THE BEGINNING. RON MACE OF NORTH CAROLINA STATE HAD EXAMPLES OF UNIVERSAL DESIGN. WHEN WE THINK ABOUT UNIVERSAL DESIGN, WHAT ARE SOME OF THE EXAMPLES? FOR INSTANCE, IN THE PICTURE, OBVIOUSLY SAYING EVERYONE IS WELCOME, THAT'S NOT NECESSARILY THE CASE IF THERE'S NO ACCESS. SO SOME OF THE EXAMPLES WOULD BE A RAMP, AN ELEVATOR, AUTOMATIC DOORS, CURB CUTS, EVEN CLOSED CAPTIONING. SO UNDER ADA ALL NEW CONSTRUCTION AND EXISTING CONSTRUCTION, EVERYBODY HAD TO COMPLY WITH THIS. SO WE'RE ALL FULLY AWARE OF THAT. SO IF WE GO ON AND APPLY THE UNIVERSAL DESIGN AND PROVIDE ACCESS TO LEARNING AS OPPOSED TO BUILDINGS OR PHYSICAL ACCOMMODATIONS, SO CAST, WHICH IS THE CENTER FOR APPLIED SPECIAL TECHNOLOGY. REALLY WHERE THE CONCEPT OF PRINCIPLES OF UDL WERE CREATED SAYS THE BARRIERS TO LEARNING ARE NOT, IN FACT, INHERENT IN THE CAPACITY OF THE LEARNERS BUT INSTEAD ARISE IN THE LEARNERS' INTERACTIONS WITH INFLEXIBLE EDUCATIONAL GOALS, MATERIALS, METHODS AND ASSESSMENTS. NOT TALKING ABOUT THE BUILDING OR PLAYGROUND, HOPEFULLY THEY ARE ALL UNIVERSALLY DESIGNED. WE'RE TALKING ABOUT THE LEARNING AND HOW WHEN WE WORK WITH FLEXIBLE DIGITAL MATERIALS THAT APPLIES UNIVERSAL DESIGN TO THE CURRICULUM. SO IF WE THINK ABOUT IT IN THE TERMS OF THIS PARADIGM SHIFT NOT TO FIX THE CHILD WHO HAS A PROBLEM BUT INSTEAD TO FIX THE BARRIERS TO AN INDIVIDUAL WITH DIVERSE LEARNING NEEDS. ONE THING THAT IS OFTEN CONFUSING FOR PEOPLE IS THE WORD UNIVERSAL. IT IS SOMETIMES MISUNDERSTOOD TO SUGGEST THAT THERE IS A SINGLE SOLUTION THAT WORKS FOR EVERYONE. THAT ISN'T THE CASE. THE IDEA IS THAT IT IS VERY FLEXIBLE, AND YOU HAVE THE INCLUSION OF ALTERNATIVES THAT YOU CAN ADAPT A VARIETY OF VARIATIONS IN LEARNING NEED STYLES AND PREFERENCES. UNIVERSAL DESIGN FOR LEARNING CALLS FOR THE DESIGN OF CURRICULA WITH THE NEEDS OF ALL STUDENTS IN MIND. SO THE METHODS, THE MATERIALS, THE ASSESSMENTS ARE USABLE BY ALL. NOW, IF WE GO ON, IF WE THINK ABOUT THIS AS A CURRICULUM FRAMEWORK AND WE HAVE THESE THREE PRINCIPLES BASED ON THE LEARNING SCIENCES, WE THINK ABOUT TRADITIONAL CURRICULUM AND HOW IT PRESENTS A HOST OF BARRIERS THAT LIMITS STUDENTS' ACCESS TO INFORMATION AND LEARNING. SO IN A TRADITIONAL CURRICULUM, A STUDENT WITH A WELL DEVELOPED -- WITHOUT A WELL-DEVELOPED ABILITY TO SEE OR TO CODE OR ATTEND TO OR COMPREHEND PRINTED TEXT, SO YOU HAVE THIS ENRICHED MULTIMEDIA SO THAT ALTERNATIVES CAN BE ACCESSED WHENEVER APPROPRIATE. SO THE IDEA IS WE WANT TO MINIMIZE THE BARRIERS, AND WE WANT TO MAXIMIZE ACCESS TO BOTH INFORMATION AND LEARNING. BESIDES BEING A -- BASED ON RESEARCH TYPICAL WE HAVE THE PRINTED TEXT THAT IS THE BIGGEST THING. SO IT IS NOT THE NORM. IT IS THE EXCEPTION. SO IF WE GO ON AND WE TALK ABOUT SO WHY IS UDL EFFECTIVE? AND WE THINK ABOUT INDIVIDUALS TODAY AND HOW DIFFERENT THEY WERE FROM 40 YEARS AGO, EVEN 20 YEARS AGO AND WE THINK ABOUT THE STUDENTS THAT WE HAVE, THE DIGITAL NATIVES THAT WE HAVE. OBVIOUSLY LEARNING IS UNIQUE TO INDIVIDUALS. THAT ISN'T SUCH A DIFFERENCE. THAT'S BEEN THE CASE FOR AS LONG AS WE'VE ALL BEEN IN SCHOOL. BUT THEIR ABILITIES ARE NOT FIXED. THEY ARE CONTINUALLY SHIFTING IN RELATIONSHIP TO THE ENVIRONMENT. AND OUR ENVIRONMENT HAS GREATLY CHANGED. SO WE HAVE THIS INTERSECTION BETWEEN THE INDIVIDUAL AND THE ENVIRONMENT THAT WE NEED TO CREATE A CLASSROOM ENVIRONMENT THAT IS GOING TO BE BENEFICIAL TO AS MANY STUDENTS AS POSSIBLE. SO THE AVERAGE STUDENT THAT

WE USED TO FOCUS OUR CURRICULUM ON IS NOT THERE ANY MORE. WE REALLY NEED TO BROADEN THAT FOCUS. INDEED, WHAT IS A MAIN THEORY IN UDL IS THAT YOU FOCUS ON THE MARGINS. YOU FOCUS ON THOSE INDIVIDUALS AT THE VERY LOWER END OF THE IQ SCALE, THE VERY HIGHER END WITH AN AVERAGE IQ OF 100. IF YOU PROVIDE ALL THOSE SUPPORTS NEEDED FOR THOSE WITH THE HIGHEST COGNITIVE NEEDS AND YOU PROVIDE ENHANCEMENTS FOR THOSE THAT PICK UP THINGS RIGHT AWAY AND THEY ARE READY TO MOVE ON TO SOMETHING ELSE, THEN YOU ARE COVERING THE BROADEST RANGE OF STUDENTS. SO EACH ONE OF THESE -- THERE'S THREE AREAS IN THE BRAIN THAT WE FOCUS ON. THE LEARNING BRAIN HAS THREE MAIN NETWORKS. THE FIRST ONE IS THE RECOGNITION NETWORK OR THE WHAT OF LEARNING. IN THIS AREA IT IS LOCATED IN THE BACK OF THE BRAIN, AND IT ENABLES US TO IDENTIFY AND INTERPRET SOUND, LIGHT, TASTE, SMELL AND TOUCH. FOR EXAMPLE, WHEN YOU ANSWER THE PHONE AND YOU HEAR A FAMILIAR VOICE, YOU CAN EASILY TELL WHO IT IS WITHOUT THAT PERSON GIVING HIS OR HER NAME. SO IN A CLASSROOM, THE RECOGNITION THAT ARE ESSENTIAL TO LEARNING. STUDENTS ARE EXPECTED TO IDENTIFY LETTERS, FORMULAS, MAPS, IDEAS, CAUSE AND EFFECT RELATIONSHIPS, ETC. SO THAT'S THE RECOGNITION THAT WE'RE GOING TO HAVE IN THE WHAT OF LEARNING. THE NEXT AREA THAT THE PRINCIPLES COME FOR IS THE STRATEGIC NETWORK. THIS IS THE HOW OF LEARNING. IT IS LOCATED IN THE FRONT OF THE BRAIN. IT ENABLES US TO PLAN, TO EXECUTE, TO MONITOR ACTIONS AND SKILLS. IN LEARNING SITUATIONS THE STRATEGIC NETWORKS ARE CRITICAL. SO EXAMPLES IN THE STRATEGIC NETWORK WORKS IN TANDEM WITH THE RECOGNITION THAT WE'RE TO LEARN TO READ, TO COMPUTE, TO WRITE, TO SOLVE PROBLEMS, TO PLAN AND EXECUTE COMPOSITIONS AND COMPLETE PROJECTS. THE LAST AREA OF THE BRAIN IS THE AFFECTIVE NETWORK. SO THE AFFECTIVE NETWORK IS LOCATED IN THE CORE OF THE BRAIN. IT ENABLES US TO ENGAGE WITH TASKS AND INFLUENCE OUR MOTIVATION TO LEARN. THEY ARE RESPONSIBLE FOR THE DEVELOPING -- FOR DEVELOPING PREFERENCES AND ESTABLISHING PRIORITIES AND INTERESTS. SO IN LEARNING SITUATIONS AFFECTIVE NETWORKS ARE ESSENTIAL FOR WANTING TO LEARN. SO IF YOU VISUALIZE A HIGH SCHOOL CLASSROOM THE NIGHT BEFORE THE PROM, ARE STUDENTS AFFECTIVE NETWORKS HELP FOCUS ON THE ALGEBRA LESSON OR ON THE PARTY AFTER THE PROM? SO REALLY THINKING ABOUT HOW WE'RE GOING TO MOTIVATE THEM. ON THESE SLIDES YOU WILL NOTICE THAT THERE ARE SOME LINKS SO HEAR UDL AND THE BRAIN RESEARCH VIDEO. THERE ARE THREE OR FOUR VIDEOS LINKED THROUGHOUT THE PRESENTATION THAT WHEN YOU GO BACK TO VIEW THE PRESENTATION ON YOUR OWN TIME, YOU WILL BE ABLE TO WATCH THOSE VIDEOS AND GET SOME MORE INSIGHT. SO UDL AND THE LEARNING BRAIN, WE THINK ABOUT THE THREE NETWORKS. IF WE GO TO VYGOTSKY AND THE FATHER OF THE THEORY OF THE ZONE OF PROXIMAL DEVELOPMENT, HE STATED ONE MUST BE ABLE TO APPLY STRATEGIES AND ONE MUST BE ENGAGED. SO THE ACTIVITIES OF THESE THREE BRAIN NETWORKS PARALLELED BY VYGOTSKY'S PREREQUISITES FOR LEARNING. SO YOU RECOGNIZE THE PATTERNS FOR PERCEPTUAL INFORMATION. YOU HAVE STRATEGIES FOR ACTING UPON THESE PERCEIVED PATTERNS AND YOU ARE ENGAGED IN THE TASK. SO WE KNOW THROUGH PET SCANS OF LEARNING IT IS NOT ONE THING, DIFFERENT AREAS OF THE BRAIN LIGHT UP WHEN SPEAKING OR WHEN GENERATING A VERB AND DIFFERENT PEOPLE BURN GLUCOSE IN DIFFERENT AREAS, AND THAT IS WHY IT IS SO IMPORTANT THAT WE HAVE MULTIPLE MEANS OF REPRESENTATIONS AND EXPRESSIONS AND ENGAGEMENTS. SO IF WE GO ON TO THE PRINCIPLES OF UNIVERSAL DESIGN FOR LEARNING AND WE LOOK AT THE FIRST PRINCIPLE, WHICH IS TO SUPPORT THE RECOGNITION LEARNING BY PROVIDING MULTIPLE, FLEXIBLE METHODS OF PRESENTATION AND REPRESENTATION. SO WE'RE GOING TO PROVIDE MULTIPLE MEANS OF REPRESENTATION. HOW CAN WE SHOW THE LESSON THROUGH A VIDEO, ALLOW SOMEONE TO LISTEN TO IT, LET SOMEBODY READ

IT? AS MANY OPTIONS AS POSSIBLE THAT SOMEONE HAS ACCESS TO THAT. THE SECOND PRINCIPLE IS TO SUPPORT THE STRATEGIC LEARNING BY PROVIDING MULTIPLE MEANS OF EXPRESSION, FLEXIBLE METHODS OF HOW YOU ARE GOING TO EXPRESS WHAT IT IS THAT YOU KNOW AS A LEARNER. SO I'M GOING TO GIVE YOU THE OPPORTUNITY TO SHOW ME IN MORE THAN ONE WAY WHAT KNOWLEDGE YOU HAVE, WHAT IT IS THAT YOU LEARNED. THE THIRD PRINCIPLE BEING MULTIPLE MEANS OF ENGAGEMENT, SUPPORTING THE AFFECTIVE NETWORK AND PROVIDING FLEXIBLE OPTIONS TO BE ENGAGED. SO IF SOMEONE IS HAVING TROUBLE WITH READING, READING REALLY TURNS THEM OFF, THAT'S GOING TO PRETTY MUCH CLOSE DOWN THEM BEING ENGAGED IN THAT'S THE ONLY WAY THEY ARE GETTING ACCESS TO MATERIAL. SO BY PROVIDING, AGAIN, MULTIPLE WAYS OF REPRESENTATION, THEY ARE GOING TO BE ENGAGED. THEY HAVE CHOICES AND THEY HAVE OPTIONS OF HOW THEY ARE GOING TO ACCESS THAT INFORMATION. WE HEAR MANY PEOPLE SAY, WHY IS UDL NECESSARY? THIS CONVERSATION, YOU KNOW, WE COULD HAVE ALL DAY AND HAVE A GREAT, RICH EXCHANGE OF IDEAS. AND THE REAL IDEA IS THAT, YOU KNOW, UDL IS BASED ON EFFECT TEACHING PRACTICE IS. WE HAVE A LOT OF EFFECTIVE TEACHERS OUT THERE. THEY PROVIDE MULTIPLE MEANS OF REPRESENTATION AND ENGAGEMENT. THEY ARE DOING A GREAT JOB. THE IDEA OF UDL NOW IS THAT WE'RE AT THIS PERFECT STORM OF HAVING ACCESS TO FLEXIBLE, DIGITAL MEDIA THAT CAN BE EASILY EMBEDDED INTO OUR CURRICULUM SO THAT IT IS ABLE TO PROVIDE MANY STUDENTS DIFFERENT OPTIONS OF HOW TO ACCESS THAT LEARNING. SO IF WE LOOK HERE AND KEN ROBINSON IS ONE OF THE PEOPLE THAT I REALLY RESPECT. I LOVE TO LISTEN TO. HE WAS THE SPEAKER AT CEC LAST YEAR, THE KEYNOTE SPEAKER. THIS IS A LINK ON THIS PAGE, THERE'S A LINK TO A VIDEO THAT REALLY TALKS ABOUT KIDS TODAY AND HOW DIVERSE KIDS TODAY ARE AND THE NEED FOR PERSONALIZED LEARNING AND JUST HOW BIG THIS VARIANCE IS ACROSS INDIVIDUALS, AND THAT THAT IS HOW OUR NORM BECAUSE OF THE ACCESS TO THE INTERNET AND THE ACCESS TO TECHNOLOGY AND THE DIGITAL NATIVES ACTUALLY, ACTUALLY THEIR NEURAL CONNECTIONS IN THEIR BRAIN DEVELOPING DIFFERENTLY THAN OURS WERE BASED ON ALL OF THIS TECHNOLOGY. SO IF WE GO ON AND WE LOOK AT UNIVERSAL INSTRUCTIONAL DESIGN AND THAT BEING AN INCLUSIVE DESIGN AND WE LOOK AT THIS INCLUSIVE LEARNING ENVIRONMENT THAT WE'RE TRYING TO BUILD AND WE LOOK AT IT FROM THE TEACHER LEVEL AND HOW THEY ARE ABLE TO ENHANCE THE CONSENT. WE LOOK AT IT FROM THE STUDENT LEVEL AND HOW THEY HAVE ACTIVE ENGAGEMENT AND OPPORTUNITIES FOR STUDENT RESPONSE AND THEY HAVE EMBEDDED LEARNING STRATEGIES AND HOW THE COLLABORATION OF THE TWO OF THIS AND THE COOPERATION BETWEEN THE TEACHER AND THE STUDENT ULTIMATELY IS THE PERFECT CREATION OF WHAT WE'RE TRYING TO DO IN A CLASSROOM. THIS FLEXIBLE DIGITAL MEDIA ALLOWS US TO DO THAT. THERE'S RESEARCH BEING DONE, THE UDL IMPLEMENTATION AND RESEARCH NETWORK IS STARTING TO PUT OUT SOME WORKING DOCUMENTS. RECENTLY THEY CAME OUT WITH CRITICAL ELEMENTS OF UDL AND HAVING CLEAR GOALS. WITH THAT IT MIGHT BE DEFINED AND SEPARATE FROM THE MEANS. SO WE ALLOW MULTIPLE PATHS AND OPTIONS FOR ACHIEVEMENT. BEING THAT, YOU KNOW, IF WE'RE TALKING ABOUT READING, THEN WE'RE NOT GOING TO USE A SPEECH TO TEXT SOFTWARE AND GIVE THE STUDENT ACCESS TO TEXT TO SPEECH SOFTWARE, BUT WE ARE GOING TO ALLOW THEM TO USE THAT IF THEY ARE IN A SCIENCE LESSON OR A MATH LESSON, THE MEANS. THE NEXT ONE ON INTENTIONAL PLANNING LEARNER VARIABILITY. WE HAVE THIS INTENTIONAL PROACTIVE PLANNING RECOGNIZING THAT EVERY LEARNER IS UNIQUE AND THAT WE'RE TRYING TO MEET THE NEEDS OF THE LEARNERS IN THE MARGINS AGAIN FROM CHALLENGED TO THE MOST ADVANCED. AND THIS IS LIKELY GOING TO BENEFIT EVERYONE. WE'RE ALSO ADDRESSING LEARNERS' STRENGTHS AND WEAKNESSES, CONSIDERING VARIABLES AND PERCEPTUAL ABILITY, LANGUAGE ABILITY, BACKGROUND KNOWLEDGE, COGNITIVE STRATEGIES AND WE'LL GO OVER A

FEW WAYS THAT WE CAN DO THAT. THE THIRD ONE, FLEXIBLE METHODS AND MATERIALS, TEACHERS USE A VARIETY OF MEDIA AND METHODS TO PRESENT THE INFORMATION. THESE ARE USED TO ENGAGE THE LEARNERS SO WE'RE PROVIDING CHOICE, ADDRESS STUDENT INTEREST AND A BIG ONE IS ALSO PROMOTING THEIR ABILITY TO MONITOR THEIR OWN LEARNING, THEIR GOAL SETTING, SELF-ASSESSMENT, REFLECTION. THE LAST ONE IS TIMELY PROGRESS MONITORING, SO WE HAVE FORMATIVE ASSESSMENTS THAT ARE FREQUENT, TIMELY ENOUGH TO PLAN AND REDIRECT THE INSTRUCTION AND SUPPORT THOSE INTENDED OUTCOMES. SO A VARIETY OF FORMATIVE AND SUM ASSESSMENTS, ORAL AND WRITTEN TESTS. IF YOU GO TO UDL-IRN THEY GOT A LOT OF SUPPORT MATERIALS BUT ALSO FIND CURRENT RESEARCH THAT IS GOING ON WITH UNIVERSAL DESIGN FOR LEARNING. OKAY. SO SOME OF THE BARRIERS THAT SLOW STUDENT PROGRESS. I KNOW THAT WE'VE ALL HAD STUDENTS THAT HAVE ORGANIZATIONAL PROBLEMS OR THAT THEY HAVE TROUBLE WITH FOCUS. THEY COULD HAVE PHYSICAL ISSUES WITH LOW VISION OR WITH FINE MOTOR PROBLEMS. THEY COULD HAVE LIMITED ENGLISH. THEY COULD BE EASILY DISCOURAGED, TROUBLE WITH KEY CONCEPTS. SO ALL OF THESE THINGS ARE DIFFERENT CURRICULUM BARRIERS TO STUDENTS. SO THE FIRST THING THAT WE DO WHEN WE IDENTIFY THE BARRIER IS LOOK AT WHAT MATERIALS AND METHODS ARE AVAILABLE TO US BASED ON THOSE STUDENT QUALITIES AND THEN WHAT FLEXIBLE MEDIA CAN I USE TO ELIMINATE THAT BARRIER, TO PROVIDE ACCESS. SO ON THE NEXT SLIDE WE TALK ABOUT PLANNING FOR ACADEMIC DIVERSITY. SO THIS ONE JUST GIVES YOU A PLETHORA OF DIFFERENT DISABILITIES OR LEARNING CHALLENGES THAT WE TYPICALLY SEE IN THE CLASSROOM. WHAT WE TRY TO DO IS EMBED AS MANY WAYS THAT WE'RE GOING TO BE ABLE TO GIVE EVERYONE OF THESE SITUATIONS SOME KIND OF CONTROL TO ACCESS THE CURRICULUM. SOME MORE BARRIERS COULD BE FUNDING SOURCES. SO MANY OF THE RESOURCES THAT WE USE AND THAT WE DISCUSS ARE FREE OR EXTREMELY REASONABLE. ANOTHER BARRIER TYPICALLY IS DEFICIT IN TEACHER KNOWLEDGE. SO HAVING MENTORS, HAVING PEOPLE THAT ARE PROACTIVE AND REALLY UNDERSTAND THE TECHNOLOGY THAT'S AVAILABLE TO US AND HOW WE CAN USE THAT EASILY. ULTIMATELY HOW THAT CAN MAKE THE TEACHER MORE EFFICIENT AND MORE EFFECTIVE. ANOTHER BARRIER IS A LACK OF TEACHER TIME, TRAINING AND TEAM WORK RELATED TO UDL. SO WE NEED TO DEVELOP THESE TEAMS, DEVELOP A WEBSITE, HAVE MENTORS AND REALLY APPROACH THIS AS A SCHOOL APPROACH MUCH LIKE POSITIVE BEHAVIOR SUPPORTS. YOU ARE REALLY -- YOU KNOW, YOU CAN START ON A SMALLER SCALE BUT ULTIMATELY THIS WORKS BEST AS A BUILDING. WE HAVE SOME DISTRICTS OUT THERE THAT HAVE DISTRICT APPROACHES TO HOW THEY ARE GOING TO EMBED THE PRINCIPLES OF UNIVERSAL DESIGN FOR LEARNING AND HOW THEY ARE GOING TO SUPPORT THEIR TEACHERS DOING THAT. HAVING THE AVAILABILITY OF WORKSHOPS AND TRAINING SESSIONS AND OFTEN BECAUSE WE HAVE MANY TEACHERS OUT THERE THAT ARE NOT DIGITAL NATIVES, THEY ARE DIGITAL IMMIGRANTS, HOW WE'RE GOING TO ADJUST TEACHER ATTITUDES AND DISPOSITIONS REGARDING TECHNOLOGY BECAUSE THAT IS A BIG BARRIER FOR MANY -- ESPECIALLY EXPERIENCED TEACHERS OUT THERE, AND BY USING THOSE EFFECTIVE TEACHER PRACTICE IS THAT THEY HAVE DEVELOPED ARE REALLY BETTER WITH TECHNOLOGY AND PUT THOSE TWO TOGETHER AND DECREASE THE BIGGEST NUMBER OF BARRIERS POSSIBLE TO OUR STUDENTS. TEACHING EVERY STUDENT IN THE DIGITAL AGE WAS THE SEMINAL WORK OF DAVID ROSE AND ANNE MEYER. THIS IS A GREAT BOOK THAT INCLUDES TEMPLATES AND IDEAS OF HOW WE CAN TEACH EVERY STUDENT IN TODAY'S CLASSROOM BY USING THE PRINCIPLES OF UDL. SO I HIGHLY RECOMMEND THAT AS A RESOURCE FOR YOU. BRENDA GOURLEY WROTE AN ARTICLE ABOUT TECHNOLOGY CHANGING EVERYTHING. MAKE IT POSSIBLE TO COMMUNICATE WITH MORE PEOPLE THAN EVER BEFORE. THEY ENABLE LEARNING ANY TIME, ANYPLACE, THEY FACILITATE PERSONALIZATION, PROMOTE OPENNESS WHICH ULTIMATELY PROMOTES

SHARING, THEY PROMOTE PARTICIPATION AND ENABLE COLLABORATION ACROSS THE WORLD. THIS IS NOW THE WORLD THAT WE LIVE IN. THESE ARE GREAT WAYS THAT WE CAN FACILITATE LEARNING, THAT WE CAN COLLABORATE ACROSS CLASSROOMS, ACROSS STATES, ACROSS COUNTRIES AND THIS TECHNOLOGY ARE THE TECHNOLOGIES THAT OUR STUDENTS TYPICALLY ARE USING OUTSIDE OF A CLASSROOM. SO UDL AND THE DIGITAL MEDIA. DIGITAL MEDIA IS SO IMPORTANT BECAUSE IT IS TRANSFORMABLE. SO THE SAME CONTENT CAN BE DISPLAYED IN MULTIPLE WAYS. SO WE CAN ADJUST THE WAY SOMETHING IS PRESENTED WITHOUT CHANGING IT TO ANOTHER MEDIA. SO CHANGING THE APPEARANCE OF TEXT, WE CAN CHANGE THE COLOR, SIZE, FONT. WE CAN CHANGE IMAGES, THE SIZE, THE SHADE, WE CAN ADJUST SOUND VOLUME. WE CAN TURN ON OR OFF GRAPHICS, SO ALL OF THESE ARE CONSIDERED WITHIN THE DIGITAL TEXT TO BRAILLE THOSE ARE REFERRED TO AS CROSS MEDIA TRANSFORMATIONS. SO THESE WITHIN MEDIA AND CROSS-MEDIA TRANSFORMATIONS ARE THINGS THAT WE'RE ABLE TO DO TYPICALLY WITH THE SOFTWARE THAT'S ON OUR COMPUTERS. THESE RESEARCH-BASED LEARNING STRATEGIES CAN BECOME PART OF A TEXT HELPING STUDENTS GAIN MEANING. BUT DEFINITELY TECHNOLOGY ALONE CANNOT ACCOMPLISH ALL, WE KNOW, AND THESE TECHNOLOGY-BASED STRATEGIES THAT WE'VE REVIEWED VERY BRIEFLY NEED TO TAKE PLACE WITHIN THIS UNIVERSALLY DESIGNED CURRICULUM, PROMISE FOR ALL. THROUGH GOALS, ASSESSMENTS, METHODS AND MATERIALS, THEY CAN SUPPORT THE LEARNING THROUGH MULTIPLE MEANS OF REPRESENTATION, EXPRESSION AND ENGAGEMENT, BUT WE HAVE TO INCLUDE THOSE EFFECTIVE TEACHING PRACTICE IS THAT WE KNOW AND USE THE FLEXIBLE DIGITAL MEDIA THAT'S AVAILABLE. SO EARLIER I TALKED ABOUT SEPARATING THE GOALS FROM THE MEANS. SO IT IS NOT ALWAYS TECH. THERE IS ALSO -- WE ALSO HAVE TO THINK ABOUT WHAT OUR GOAL IS AND WHAT THE NEED IS. SO IF WE USE THIS CURRICULUM THAT'S ROOTED IN THESE THREE PRINCIPLES, STUDENTS WILL HAVE THE OPTIONS FOR HOW THEY LEARN, THE CHOICES WHICH THEY WILL BE ENABLE TO ENGAGE THEIR INTEREST AND CHOICES OF HOW THEY ARE GOING TO DEMONSTRATE THEIR LEARNING. IN ORDER FOR THE STUDENTS TO HAVE THAT, THE TEACHERS NEED TO PROVIDE FLEXIBLE WAYS OF PRESENTING LESSON CONSENT. TEACHERS TYPICALLY WHEN WE TALK ABOUT, YOU KNOW, PROVIDING ALL THIS FLEXIBILITY, THEY GET A LITTLE OVERWHELMED IF THEY FEEL THAT TECHNOLOGY WISE MAYBE THEY ARE NOT UP TO THAT. BUT IT IS REALLY AMAZING WHEN YOU HAVE STUDENTS COME IN AND THEY ARE ABLE TO RECORD SOME BACKGROUND KNOWLEDGE INTO A DOCUMENT AND THEY JUST SEE WHAT A DIFFERENCE THAT MAKES FOR THAT INDIVIDUAL. AND HOW WE CAN STILL PROVIDE CHALLENGE AND ENGAGEMENT AND ULTIMATELY GET THE MOST OUT OF STUDENTS. SO THIS FLEXIBILITY OF THE DIGITAL CURRICULUM, MAKING IT EASIER THAN EVER TO ADJUST THIS CHALLENGE LEVEL OF DIFFERENT ACADEMIC TASKS, HAVING THIS VOLUME CONTROL WHERE WE'RE ABLE TO A JUST THE INDIVIDUAL STUDENT'S NEEDS AND THE STUDENT BEING ABLE TO CONTROL THAT. SO PIERRE TOMLINSON, A BIG NAME IN DIFFERENTIATION THE TERM USES EQUALIZER TO DISCUSS THE CONCEPT OF A SLIDER. WE'RE REALLY TRYING TO LEVEL THE PLAYING FIELD. SO WHEN I GIVE THIS PRESENTATION IN PERSON, I OFTEN TALK ABOUT EYEGLASSES BECAUSE I WEAR GLASSES. THE FACT THAT BY ME HAVING THESE GLASSES, IT PROVIDES ME ACCESS TO THE WORLD GENERALLY. SO IT IS AN EQUALIZER FOR ME. SO IF WE THINK ABOUT A LOT OF THESE SUPPORTS THAT WE WANT TO EMBED IN THE TEACHING, WE THINK ABOUT IT AS AN EQUALIZER, LEVELING THE PLAYING FIELD, THAT SEEMS TO CLICK FOR MANY. THE NEXT IS A GRAPHIC OF THE PRINCIPLES AND THE GUIDELINES FOR UNIVERSAL DESIGN FOR LEARNING. SO AT THE VERY TOP YOU HAVE THE THREE GUIDELINES, THE THREE PRINCIPLES IN THE THREE DIFFERENT COLORS, PROVIDING MULTIPLE MEANS OF REPRESENTATION, PROVIDE MULTIPLE MEANS OF ACTION AND EXPRESSION AND PROVIDE MULTIPLE MEANS OF ENGAGEMENT. UNDER EACH ONE OF THE PRINCIPLES, THERE ARE SEVERAL GUIDELINES THAT BREAKS IT

DOWN A LITTLE BIT MORE. SO UNDER REPRESENTATION YOU WILL HAVE OPTIONS FOR PERCEPTION AND OPTIONS FOR LANGUAGE AND MATH. IT BREAKS IT DOWN EVEN MORE OF HOW YOU CAN OFFER WAYS TO CUSTOMIZE. NOW WE'RE GOING TO SHARE SOME RESOURCES WITH YOU AND YOU WILL HAVE ACCESS TO THIS GRAPHIC AND YOU WILL HAVE ACCESS TO THE GUIDELINES AND DIFFERENT WAYS THAT YOU ARE ABLE TO DO THIS WITH FREE TECHNOLOGY. AS FAR AS UDL AND OUR CURRENT EDUCATION POLICY, UDL IS DEFINITELY ON THE MAP IN WASHINGTON. THIS WAS A LETTER FROM ARNIE DUNCAN TO CONGRESS TALKING ABOUT SPECIFICALLY USING UNIVERSAL DESIGN FOR LEARNING IN TRYING TO ACHIEVE A HIGHER LEVEL OF TEACHING AND EFFECTIVE TEACHING AND LEARNING. YOU KNOW, WE HAVE SEVERAL DIFFERENT STATES AND PROVINCES THAT THEY CURRENTLY HAVE WITH STANDARD-BASED EDUCATION. WHILE THEY ARE STILL RECOGNIZING AND HONORING THE INDIVIDUAL VARIABILITY AND DIVERSITY. IF WE GO ON TO THE NEXT SLIDE, IT HIGHLIGHTS THAT A LITTLE BIT. THE U.S. DEPARTMENT OF EDUCATION, NATIONAL SCIENCE FOUNDATION, OTHER MAJOR FOUNDATIONS AND CORPORATIONS ARE SUPPORTING INITIATIVES TO EXPAND UDL. THERE ARE STATES THAT HAVE UDL DIRECTORS WHICH THEIR ONE GOAL IS TEACHERS IMPLEMENT UNIVERSAL DESIGN IN THEIR BUILDINGS. SO UDL IS REALLY A MERGING OF GENERAL EDUCATION AND SPECIAL EDUCATION AND A SHARING OF THIS RESPONSIBILITY, AND I THINK AS WE SEE REAUTHORIZATION OF NO CHILD LEFT BEHIND AND REAUTHORIZATION OF IDEA, WE'RE GOING TO SEE MORE AND MORE OF THIS SHARING. THIS IS THE DIRECTION WE'RE GOING. AND THE AVAILABILITY OF TECHNOLOGY AT EVERYBODY'S FINGERTIPS REALLY ALLOWS THIS TO TAKE PLACE NOW. THERE IS A LINK ON THE NEXT SLIDE, WHICH WAS DEVELOPED BY THE MARYLAND DEPARTMENT OF EDUCATION. IT IS CALLED THE UDL WHEEL. THERE IS A WHEEL THAT YOU CAN TURN WITH YOUR MOUSE, DEPENDING ON WHAT KIND OF SUPPORT YOU ARE LOOKING FOR AND WHAT SITUATION AND IT GIVES YOU DIFFERENT OPTIONS FOR PERCEPTION OR WHATEVER IT IS THAT YOU ARE NEEDING TO EMBED IN A SPECIFIC LESSON. A BIG THING THAT I WANT TO REINFORCE IS FACE-TO-FACE I HAVE PEOPLE ASK THE DIFFERENCE BETWEEN UNIVERSAL DESIGN FOR LEARNING AND DIFFERENTIATION IN INSTRUCTION AND THIS IS REPLACING ONE OR EXACTLY WHAT SETS THEM APART. UNIVERSAL DESIGN FOR LEARNING AND DIFFERENTIATION IN INSTRUCTION WORK TOGETHER TO CREATE A GREAT ENVIRONMENT FOR STUDENTS. UNIVERSAL DESIGN FOR LEARNING IS THIS FRAMEWORK THAT YOU PLAN FROM THE VERY BEGINNING. YOU PLAN YOUR LESSONS SO THAT THEY ARE FLEXIBLE ENOUGH FOR THE MAJORITY OF STUDENTS TO BE ABLE TO ACCESS THAT LEARNING. DIFFERENTIATION IN LEARNING AND NOT FIX THE CHILD. ANOTHER ONE IS AS FAR AS THE INTERVENTION, IS UDL AN INTERVENTION? NO. IT IS A CURRICULUM FRAMEWORK. WHY DO WE NEED TO USE UDL? OUR STUDENTS ARE MORE DIVERSE THAN EVER. SO HOPEFULLY THIS IS THE PERFECT STORM, THE PERFECT TIME THAT UDL MAKES SENSE, IT FITS. AS FAR AS PRINCIPLES, TO SHOW OUR MATERIAL IN A MULTIPLE, AS MANY WAYS AS POSSIBLE. WE'RE GOING TO GIVE THEM MULTIPLE WAYS TO EXPRESS WHAT IT IS THEY KNOW AND WE'RE GOING TO ENGAGE THEM THROUGH MULTIPLE WAYS. AT THIS TIME, AT THIS POINT I'M GOING TO KEEP CHECKING ON THE QUESTION AND ANSWER PANE. SO IF YOU WOULD HAVE ANY SPECIFIC QUESTIONS YOU WOULD LIKE ME TO ADDRESS, I WOULD LOVE TO DO THAT. IT IS KIND OF TAKING ACTION. SO JUST THINK ABOUT, YOU KNOW, WHAT YOU WANT TO IMPLEMENT AND WHAT THE BENEFITS OF THAT IMPLEMENTATION WOULD BE. WHAT WOULD SUCCESS LOOK LIKE IF YOU WERE TO IMPLEMENT THE PRINCIPLES OF UDL IN YOUR CURRICULUM? WHAT ARE SOME POSSIBLE BARRIERS TO YOUR CLASSROOM, TO YOUR SCHOOL, TO YOUR DISTRICT? WHAT WOULD POSSIBLE SOLUTIONS BE? WHAT WOULD NEEDED RESOURCES BE AND WHAT IS THE TIMELINE FOR YOU? YOU KNOW, WE HAVE A TWO-PART WEBINAR SO THIS FIRST PART WE REALLY WANTED TO INTRODUCE YOU TO THE PRINCIPLES, TO THE CONCEPT, THINK ABOUT WHAT YOU CAN START DOING AND THEN IN PART TWO ON APRIL 11TH WE'RE GOING

TO REALLY GET INTO SPECIFIC TECHNOLOGIES AND STRATEGIES FOR HOW TO EMBED UDL INTO YOUR TEACHING. THIS NEXT SLIDE ARE SEVERAL RESOURCES FOR YOU SO THE LINK TO THE CENTER FOR APPLIED SPECIAL TECHNOLOGY, A PLETHORA OF RESOURCES, AIM, NATIONAL CENTER ON ACCESSIBLE INSTRUCTIONAL MATERIALS, RESEARCH NETWORK AND ALSO THE IRIS CENTER OUT OF VANDERBILT IF YOU ARE FAMILIAR, THEY HAVE A FREE MODULE ON UNIVERSAL DESIGN FOR LEARNING THAT GOES THROUGH ALL OF THE PRINCIPLES AND CONCEPTS AND STRATEGIES. HOPEFULLY, YOU KNOW WHY YOU WERE ABLE -- HOPEFULLY YOU WERE ABLE TO LEARN SOME NEW THINGS, THINK ABOUT WHY YOU LEARNED IT, THINK ABOUT HOW YOU CAN USE IT. AGAIN, I WAS HOPING WE WOULD HAVE SOME QUESTIONS. BUT IF WE DON'T HAVE ANY QUESTIONS, I CAN CONTINUE TO GIVE YOU SOME DIFFERENT IDEAS OR WE CAN WRAP IT UP. KEEPING IN MIND THAT AGAIN UDL IS INSTRUCTIONAL DESIGN GROUNDED IN EFFECTIVE TEACHING PRACTICE IS. SO WE REALLY HAVE -- THEY REALLY WORK IN TANDEM AND WE'RE JUST AT THAT TECHNOLOGICAL ADVANCEMENT WHERE IT CAN REALLY WORK FOR THE STUDENTS AND TEACHERS' BENEFITS. ONE THING I WILL LEAVE YOU WITH IS IT TAKES 21 DAYS TO FORM A HABIT, SO ONCE YOU START TO EMBED SOME OF THESE IDEAS, SOME OF THESE STRATEGIES, HOPEFULLY THAT'S WHAT I'M GOING TO SEE IF MAYBE MEGAN WANTS TO JUMP IN HERE AND SEE IF MAYBE SHE'S GOT SOME QUESTIONS. ARE YOU THERE, MEGAN? MS. FREEMAN: I AM HERE. WE DON'T HAVE ANY MORE QUESTIONS THAT WE'VE RECEIVED UP TO THIS POINT. DR. AGUINAGA: NOW, I NOTICE ONE OF THE ATTENDEES SAID THAT THEY CLICKED ON THE HANDOUT LINKS AND THEY DID NOT WORK. I KNOW ALL OF THESE LINKS ARE LIVE WITHIN THE POWERPOINT. SO THERE WAS NO HANDOUT LINK WITHIN THE PRESENTATION. THERE WERE ONLY LINKS TO URL'S SO THAT YOU COULD ACCESS, LIKE, THE PRINCIPLES AND GUIDELINES, YOU WILL BE ABLE TO ACCESS FROM THE CAST SITE. HOPEFULLY THAT ANSWERS YOUR QUESTION, MARY ANN. ANY OTHER QUESTIONS THAT YOU WOULD LIKE TOO TYPE IN THE Q AND A AREA? SOME OF THE THINGS THAT WE'RE GOING TO TALK ABOUT IN PART TWO HAVE TO DO WITH THE IMPLEMENTATION OF SOME OF THE LEARNING PRINCIPLES. SO, FOR INSTANCE, WE'LL TALK ABOUT A PROBLEM INSTEAD OF USING THE TRADITIONAL CHALKBOARD, PAPER AND PENCIL, WE COULD USE WEB MATH FOR CALCULATION SUPPORTS AND VIRTUAL MATH MANIPULATIVES AND REALLY LOOKING AT TRADITIONAL, HOW WE CAN TAKE A TRADITIONAL LESSON AND LEARN THAT INTO A UNIVERSAL DESIGN LESSON. SO HOPEFULLY THAT'S SOMETHING THAT YOU WILL WANT TO COME BACK FOR SO WE CAN GET INTO A LITTLE BIT MORE NOW THAT YOU HAVE GOT THE CONCEPT UNDER YOUR BELT. SO I WILL SAY THANK YOU VERY MUCH, AND I HOPE TO SEE YOU ALL ON PART TWO WHEN WE CAN GET INTO MORE DETAIL THEN. HAVE A GOOD DAY. MS. FREEMAN: THANK YOU, DR. AGUINAGA FOR A VERY INFORMATIVE PRESENTATION. THANKS ALSO TO YOU, OUR PARTICIPANTS, FOR JOINING OUR WEBINAR TODAY. WE HOPE YOU HAVE LEARNED ABOUT THE CONCEPT AND PRINCIPLES OF UDL AND HOW THEY CAN BE INTEGRATED INTO CURRICULUM DEVELOPMENT. PLEASE BE SURE TO COMPLETE THE SHORT SURVEY VIA THE LINKAGE TO OUR WEBINARS. WE HOPE YOU WILL BE ABLE TO JOIN US FOR PART TWO OF THIS UDL WEBINAR SERIES PRESENTED BY DR. AGUINAGA ON THE WEBINAR SECTION OF THE DESE WEBSITE. AGAIN THANK YOU AND BEST WISHES AS WE ALL WORK TOGETHER TO HELP MISSOURI BE TOP 10 BY 20.

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