

Education:

2018 Clemson University, Clemson SC

PhD candidate, learning science (dissertation completion phase)

(Research path: design technology enhanced learning environments (games, apps, multimedia, web based) to increase interactivity, motivation, curiosity and creative problem solving.

Details and Demos of research: krclark.us

2011 Clemson University, Clemson SC

Master of Science, biological science, GPR 4.0 out of 4.0

(Excelled in environmental engineering organic chemistry and mechanistic toxicology. Research experience in lipid biochemistry).

2009 Clemson University, Clemson SC

Bachelor of Science, biochemistry Cum Laude

(Excelled in 800 level electives: bio-inorganic chemistry & environmental toxicology; supplemental coursework in computer science, research experience in lipid biochemistry)

2006 Greenville Technical College, Greenville SC

Associate of Science, biotechnology, GPR 4.0 out of 4.0 (Supplemental coursework in computer programming).

2000-2015 Online Courses & Webinars

Computer Science, Object Oriented Programming and Adobe Creative Suite Design Software (see on-line cv/resume for details: http://www.krclark.us

Work Experience:

Jan 2019- May 2019 Clemson University, SC: Visiting Professor (Temp./Part-time)

EDF3020 (Educational Psychology): Instructed students on introduction to classroom use of objectives, motivation theories, learning theories, tests and measurements, classroom management, and knowledge of exceptional learners as a means of integrating these perspectives and theories in their future classrooms. One of the intended objectives of this course is to prepare students to take the Principles of Learning and Teaching Praxis exam for South Carolina educators.

Implemented innovative teaching strategies such as use of Adobe Spark to create Teaching & Learning Journals. This project gave students opportunities to reflect on their learning, design & teach academic lessons, reflect on effective and creative teaching strategies, reflect on their preferred teaching methods, and reflect on their teaching philosophies. Created course, exams and assignments in Canvas.



August 2014- May 2018 Clemson University, SC: Graduate Research Assistant

Conducted research in creativity, curiosity, motivation and engagement related to technology enhanced learning environments to include game-based learning. Authored and edited manuscripts. Designed and developed a game as part of my PhD research. Worked with a team of three doctoral students under minimal supervision to create an on-line section for Digital Media and Learning (STS4800). Co-taught the on-line section of Digital Media and Learning (STS4800). Prepared course materials and taught EDF3020 (Educational Psychology). Received Clemson University College of Education ADR 2016-2017 Research Award and Clemson University 2017-2018 SEED Grant to support my PhD research. (Dr. Qian, PhD committee chair, as PI). (Ref. Meihua Qian <mqian@g.clemson.edu>)

Feb 2012- May 2014 Clemson University, SC: Research Assistant

Research assistant in plant lipid biochemistry. Managed lab and conducted experiments in a manner which minimized time requirements of supervisor. Biochemical research routinely handling radioisotopes and chemicals with proper handling, storage, record keeping and disposal. Performed necessary mathematical computations and data analysis. Experienced in biochemical and molecular biology techniques. Prepare reports on scientific investigations, studies and data as well as produce visual representations of data via Excel, PowerPoint, Adobe design software, infographics and animations. Designed conference quality posters for science meetings. Assisted with writing of manuscripts for publication. Collected, analyzed and reported data to supervisor as well as created visual representations of the data and statistics for manuscripts. Taught biology and biochemistry as needed. (Ref. Sam Sparace smprc@clemson.edu)

Jan 2009 – Present Phoenix Rising Border Collie Rescue (Volunteer, Board of Directors). (5 hr/wk) Designed, developed & maintain web site. Designed online database and DBMS using SQL and PHP for record keeping allowing greater collaboration between volunteers. Designed/developed bi-yearly fundraising campaigns resulting in over 20,000 dollars in charitable contributions over the last 3 yrs. Coordinate and organize events and transports.

Dec 2003- Jun 2004 Fennel Container, Mauldin SC (Dispatch / Inside Sales)

Dispatch drivers, inside sales. Remained calm under intense pressure to rapidly adjust to break downs and emergencies to re-route drivers while keeping drivers under DOT regulation hours and keeping customers serviced on time. Required great organizational, managerial and communication skills.

Dec 2002-Dec 2003 Waste Industries, Easley SC (Inside & Outside Sales/Territory Sales Manager) Managed sales territory, prepared and submitted oral and written reports on a monthly basis. Received sales award for 2003.



Feb 1998- Dec 2002 Kellett's Garbage (Kellett's Korner)

Recommended and implemented computer network to replace paper based bookkeeping system resulting in amore productive and profitable work environment. Recommended and implemented improvements to the billing system that generated a consistent cash flow and a more productive work flow for the business. Maintained collections, sales, and invoicing in a timely manner. Trained employees on computer operations. Completed payroll when needed to ensure employees received paychecks in a timely manner. (Ref. Ann or Tommy Kellett 864-288-9750)

Jan 1993- Jan 1998 Kellett's Well Boring

Manager of water well division and manager of DOT / OSHA / HAZMAT / DEHEC / MSDS compliance for methane gas drilling division. Determined pricing of products and services to maximize profit and loss for the company. Stayed current and implemented necessary steps to ensure government regulation compliance. Ensured deadlines were met to prevent penalties on government jobs. Organized and completed government contracts / bids and accompanying reports to maintain compliance. Designed a database (with Microsoft Access) to maximize efficiency of record keeping and company operations. Took over company operations while the owner was out of the country to ensure payroll and accounts payables were complete in a timely manner. Invoiced government contracts, submitted bids, managed purchasing, inventory and pricing in order to maximize profits and increase awarded contracts. (Note: the owner for whom I worked is deceased, Gary Trotter was my immediate supervisor while there and can be a reference. Ref. Gary Trotter 864-918-8163).

Computer Skills:

Design Software:

- Unity 3D with C#
- Photoshop
- Flash Pro / Animator
- Dreamweaver
- Illustrator
- Captivate
- Lightroom
- Soundbooth
- After Effects
- Premier Pro
- Microsoft Publisher

Production Software:

- Microsoft Office (2016)
 - Word
 - Excel
 - Access
 - PowerPoint
 - Publisher
 - Outlook

Statistical Software (3 yrs.):

- JMP
- SAS
- SPSS
- R

Programming Languages:

- CSS (10+ yrs.),
- CSS3 (4+ yrs.)
- HTML/XHTML (10+ yrs.)
- HTML5 (3+ yrs.)
- Sass (1 yr.)
- SQL (3+ yrs.)
- Java (2+ yrs.)
- Android (3+ yrs.)
- ActionScript 2.0 / 3.0 (10+ yrs.)
- WordPress
- Responsive Web Design (Mobile first)
- Minimum PhP (1+ yrs.)
- Moderate JavaScript (3+ yrs.)
- Moderate iQuery (2+ yrs.)
- Moderate C#

Publications

- Qian, M.; **Clark, K.R**. 2016. Games based learning and 21st century skills: a review of recent research. *Computers in Human Behavior*.
- Herro, D. & Clark, KR. (2016). An Academic Home for Play: Games as Unifying Influences in Higher Education. *On The Horizon*.
- Qian, M.; **Clark, K.R**. Games based learning and 21st century skills: a review of recent research. Accepted October 2015 *AERA*.
- He Y., T.E. Young, **K.R. Clark**, K.F. Kleppinger-Sparace, W.C. Bridges, **S.A.** Sparace. (2011). Developmental profile of storage reserve accumulation in soybean somatic embryos. *In Vitro Cellular and Developmental Biology* 47(6): 725-733.
- **Clark, K.R.**, Y. He, T. Young, K.F. Kleppinger-Sparace and S.A. Sparace. Characterization of fatty acid biosynthesis in plastids isolated from developing soybean somatic embryos. In preparation for *Lipids*.
- Qian, M., & Clark, K.R. Promoting creativity through game-based learning: a review of recent research.

 Manuscript in review *Computers in Human Behavior*
- Qian, M., & Clark, K.R. Game-based learning and science education. Manuscript in preparation for submission to a peer review journal.
- **Clark, K.R.**, Qian, M., and Sparace, S., Towards a model for educational game design: A comparative study of three games. Manuscript in preparation for submission to a peer review journal.

Abstracts, Posters & Presentations at Conferences

- Clark, K.R., Qian, M, Bowers, E., Dean, B., and Sparace, S. 2018. Let There Be Dragons! An Engaging Quest to Explore Genetics. College of Education Research Forum. Clemson University
- Qian, M., & Clark, K.R. (2016, April). Game-based learning and 21st century skills: a review of recent research. Presented at the annual meeting of the American Educational Research Association, Washington, DC.
- **Clark, K.R.** 2015. My adventures as a high elf mage in Skyrim. Playful Learning Summit (May 16, 2015) Greenville, SC.
- **Clark, K.R**, Y. He and S.A. Sparace. 2013. The Effects of Light on Storage Reserve Accumulation in Soybean Somatic Embryos and Plastidic Fatty Acid Biosynthesis. The 2013 Annual Meetings of the American Society of Plant Biologists (July 20 24), Providence, RI.



- Sparace, S.A., **K.R. Clark**, Y. He, T.E. Young, Z. Li, H. Luo and K.F. Kleppinger- Sparace. 2012. Soybean Somatic Embryos and Plastids as a Model System for Lipid Metabolism. The 2012 Annual Meetings of the Southern Section of the American Society of Plant Biologists (March 3 5), Myrtle Beach, SC.
- Sparace, S.A., K.R. Clark, Y. He, T.E. Young and K.F. Kleppinger-Sparace. 2011. Lipid Metabolism in Soybean Somatic Embryos and Plastids. The 24th Canadian Conference on Fats and Oils (September 26 27), Edmonton, Alberta, Canada.
- Clark, K.R., Y. He, T.E. Young, K.F. Kleppinger-Sparace and S.A. Sparace. 2010. Fatty Acid Biosynthesis by Soybean Somatic Embryo Plastids. Annual Meetings of the American Society of Plant Biologists (July 31 August 4), Montreal, Canada.
- **Clark, K.R.**, Y. He, T. Young, K.F. Kleppinger-Sparace and S.A. Sparace. 2010. Isolation of Plastids from Soybean Somatic Embryos for Studies of Lipid Biosynthesis. The 19th International Symposium on Plant Lipids (July 11-16), Cairns, Australia.
- **Clark, K.R.,** Sparace, S.A. 2009. Towards Developing a Method for the Isolation of Plastids from Soybean Somatic Embryos. Annual Meetings of the American Society of Plant Biologists, Honolulu, HI (July 18-22).
- Sparace, S.A., He, Y., **Clark, K.R**., Young, T.E. 2009. Developmental Profile of Storage Reserve Accumulation in Soybean Somatic Embryos. Annual Meetings of the Society for In Vitro Biology (June 6-10), Charleston, SC.
- **K.R. Clark**, 2009. Development of a method for isolation of plastids from soybean somatic embryos. SC Life Undergraduate Research Program (April 4, 2009), Sumter, SC.

Invited Presentations

Sparace, S.A., **K.R. Clark**, Y. He, T.E. Young and K.F. Kleppinger-Sparace. 2011. Lipid Metabolism in Soybean Somatic Embryos and Plastids. The 24th Canadian Conference on Fats and Oils (September 26 – 27), Edmonton, Alberta, Canada.

Honors & Awards

SC Life Undergraduate Research Grant, 2009

Clemson University Recruitment Fellowship 2009

MacDonald Graduate Fellowship, 2015

Clemson University. Graduate Student Award of Excellence in Research, 2017

Phi Kappa Phi, 2018

Workshops

Assisted in teacher professional development workshop for games for learning: The Radix Endeavor. Playful Learning Summit, May 16, 2015. Greenville, SC

Web Design (portfolio)

- CV/Resume: krclark.us 2018 mobile first responsive html5 and CSS3
- Paw Paints (pawpaints.net) 2018 in progress mobile first responsive html5 and CSS3
- SCFAA (scfaa.org) 2014 mobile first responsive html5 and CSS3
- Fun Science 4 u (funscience4u.com) 2013 html and css
- My Dogs Rule (vanity site) (mydogsrule.org): 2018 mobile first responsive html5 & CSS3
- DragonMist.org/game. Customized WordPress site PhD Research. (2019 in progress)

Mobile Apps & Educational Design (Portfolio)

- DragonMist (genetics mod for Skyrim). <u>Demo Video</u>
 DNA Structure and Function on Google Play (educational app) (<u>Interactive Demo-requires Flash</u>)
 The Garden of Eden on Google Play and Amazon (children's interactive Bible story and games)
- Other demos available upon request

Online CV/Resume

http://www.KRClark.us