

# INTERDISCIPLINARITY

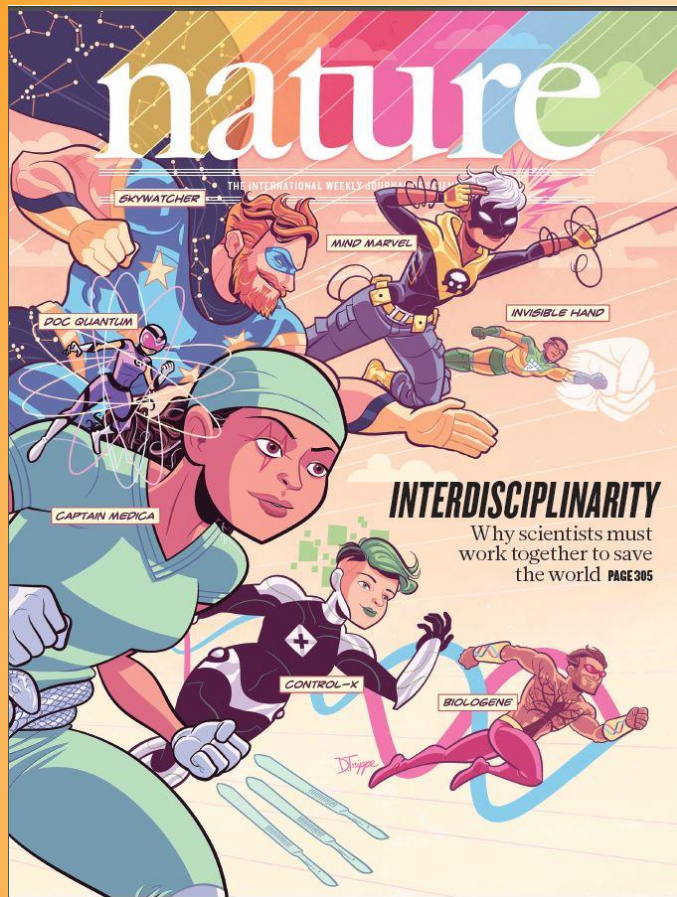
**Saving the World with an MSC degree**

Patricia Lucero Chantrill

CMST 568 Guest Lecture

02 December 2019





<https://www.nature.com/nature/journal/v525/n7569/index.html>

September 2015

## EDITORIAL



### Mind meld

Interdisciplinary science must break down barriers between fields to build common ground.

*Nature* (16 September 2015)

## FEATURES



### Interdisciplinary research by the numbers

An analysis reveals the extent and impact of research that bridges disciplines.

*Nature* (16 September 2015)



### How to solve the world's biggest problems

Interdisciplinarity has become all the rage as scientists tackle climate change and other intractable issues. But there is still strong resistance to crossing borders.

*Nature* (16 September 2015)



### Quiz: How interdisciplinary are you?

Many scientists claim to be interdisciplinary – but are they really?

*Nature* (16 September 2015)

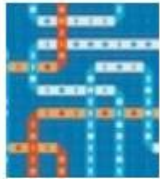




### Integration of social science in research is crucial

Social scientists must be allowed a full, collaborative role if the public is to understand and engage with the issues involved, says Ana Viseu.

*Nature* (16 September 2015)



### Global funders to focus on interdisciplinarity

Granting bodies need more data on how much they are spending on work that transcends disciplines, and to what end, explains Rick Rylance.

*Nature* (16 September 2015)



### How to catalyse collaboration

Turn the fraught flirtation between the social and biophysical sciences into fruitful partnerships with these five principles, urge Rebekah R. Brown, Ana Deletic and Tony H. F. Wong.

*Nature* (16 September 2015)

## BOOKS AND ARTS



### Inside Manchester's 'arts lab'

Peter E. Pormann on the revelations a meshing of technology and humanities can yield.

*Nature* (16 September 2015)



### One-man multidisciplinary

Clare Pettitt reassesses the legacy of Victorian polymath Richard Francis Burton.

*Nature* (16 September 2015)





### The undisciplinarian

Social historian Harvey Graff turns a practised eye on interdisciplinarity, exploding myths about that meshing as he goes.

*Nature* (16 September 2015)

## SCIENTIFIC AMERICAN



### Big Science, big challenges

The powerful and sometimes uneasy alliance between science and the society it serves is the theme of this year's special report on the "State of the World's Science."

*Scientific American* (16 September 2015)

## ELSEWHERE

### Palgrave Communications Collection

This collection is dedicated to the concept of interdisciplinarity within and between disciplines in the humanities, social sciences and business studies.

*Nature* (21 July 2015)

# BALANCING CONCENTRATION & INTEGRATION



- ▶ It is possible to pursue interdisciplinary concentrations or majors in a wide variety of fields, including cybernetic systems, human services, international studies, **communications**, psychobiology, humanities, urban studies, multicultural education, regional and ethnic studies, border studies, environmental studies, human ecology, human development, and a variety of career and professional interests.
- ▶ **There is no sharp dividing line between liberal education and interdisciplinary concentrations because the interdisciplinary approach is often a way of making training more *liberal* in both scope and substance.”**

— Julie Thompson Klein, *Interdisciplinarity: History, Theory & Practice*, 1990 and *Crossing Boundaries: Knowledge, Disciplinarity, and Interdisciplinarity*, 1996



# INTERDISCIPLINARY COMMUNICATION STUDIES & CRITICAL DISCOURSE ANALYSES

Comment | [Open Access](#) | Published: 04 February 2016

## The interdisciplinarity of critical discourse studies research

Johann W Unger 

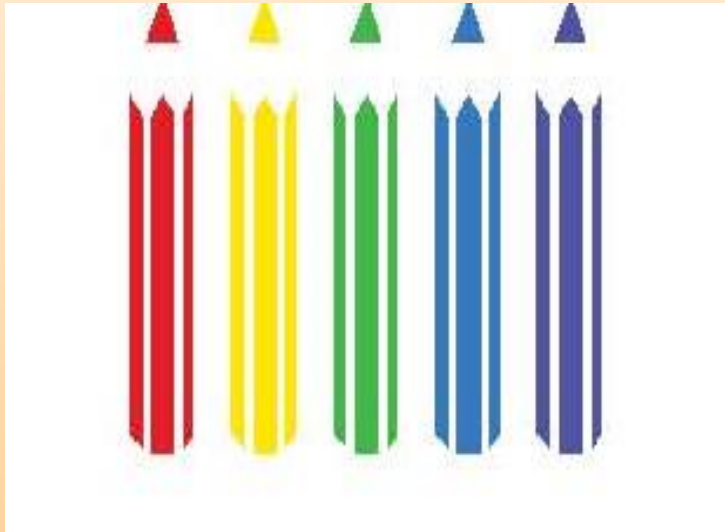
*Palgrave Communications* 2, Article number: 15037 (2016) | [Cite this article](#)

444 Accesses | 4 Citations | 17 Altmetric | [Metrics](#)

<https://www.nature.com/articles/palcomms201537>

- ▶ “Interdisciplinarity has been a core tenet of **critical discourse studies—a group of approaches to the analysis of texts in their social contexts—since its inception, in what may be seen as a reaction against the sometimes staid and rigid disciplinary boundaries of linguistics and other disciplines.**
- ▶ Interdisciplinarity has also been seen as necessarily accompanying analyses of **complex social problems such as racism, sexism or other forms of discrimination and social domination.** The concept has been multiply re-examined, challenged and reaffirmed by critical discourse scholars.”

## All about the Integration: Levels of Interdisciplinarity



### 1. FIRST LEVEL INTEGRATION AND SYNTHESIS

Students take a selection of courses from different “departments,” counting them toward a particular disciplinary major. This is the **most common, cheapest, least demanding, most easily achieved** interdisciplinary variant. It is also **the least effective**.

--adapted from JT Klein, *Interdisciplinarity*, 1990

## All about the Integration: Levels of Interdisciplinarity



## 2. SECOND LEVEL INTEGRATION AND SYNTHESIS

There exists an institutionally provided opportunity for students to meet and share insights from various disciplinary courses, often in a capstone manner. However, **the responsibility for achieving integration may be left largely to the students;** tangible role models among the faculty are scarce.



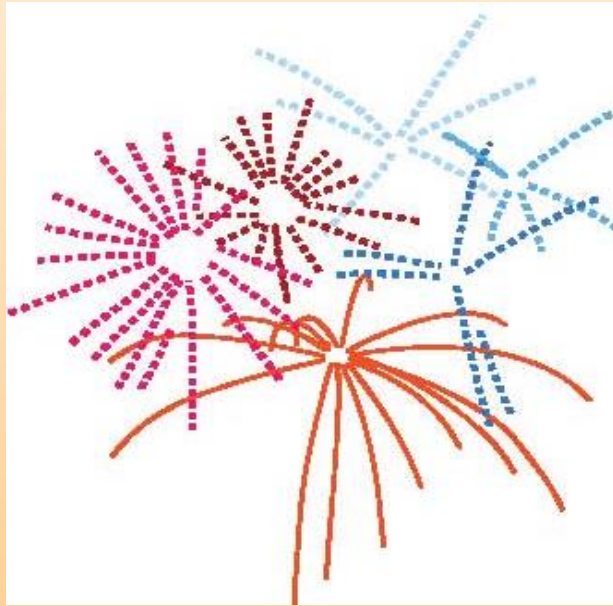
## All about the Integration: Levels of Interdisciplinarity



### 3. THIRD LEVEL INTEGRATION AND SYNTHESIS

At this level, a significant change occurs as **faculty join students in the process of synthesizing knowledge**. This implies the creation of courses focused on interdisciplinary topics and requires the participation of more than one faculty member. However, the degree of interaction varies, and these courses are **often characterized by serial rather than integrated team teaching**, since individual faculty simply “bring their disciplinary wares to be displayed in a different context.”

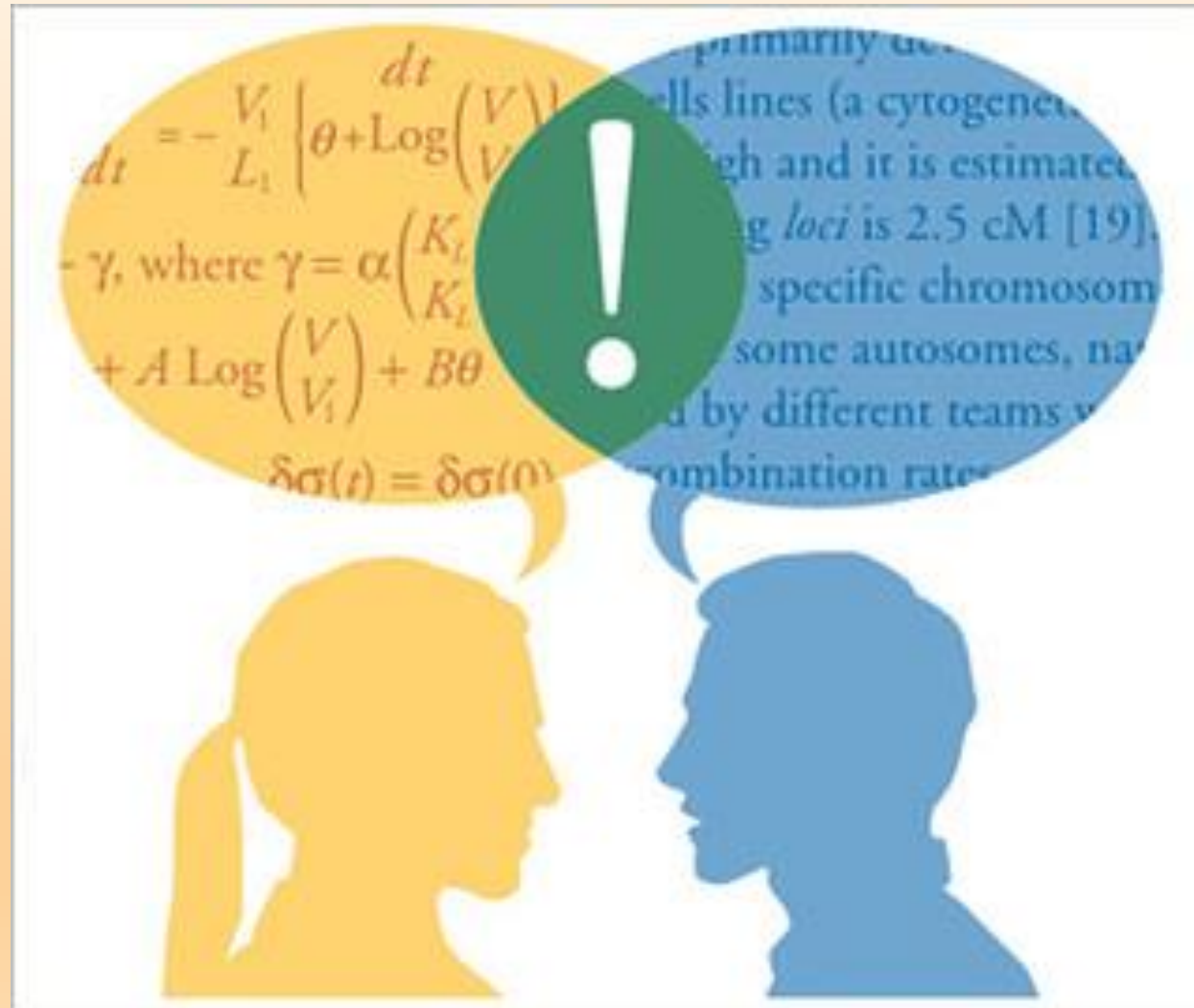
## All about the Integration: Levels of Interdisciplinarity



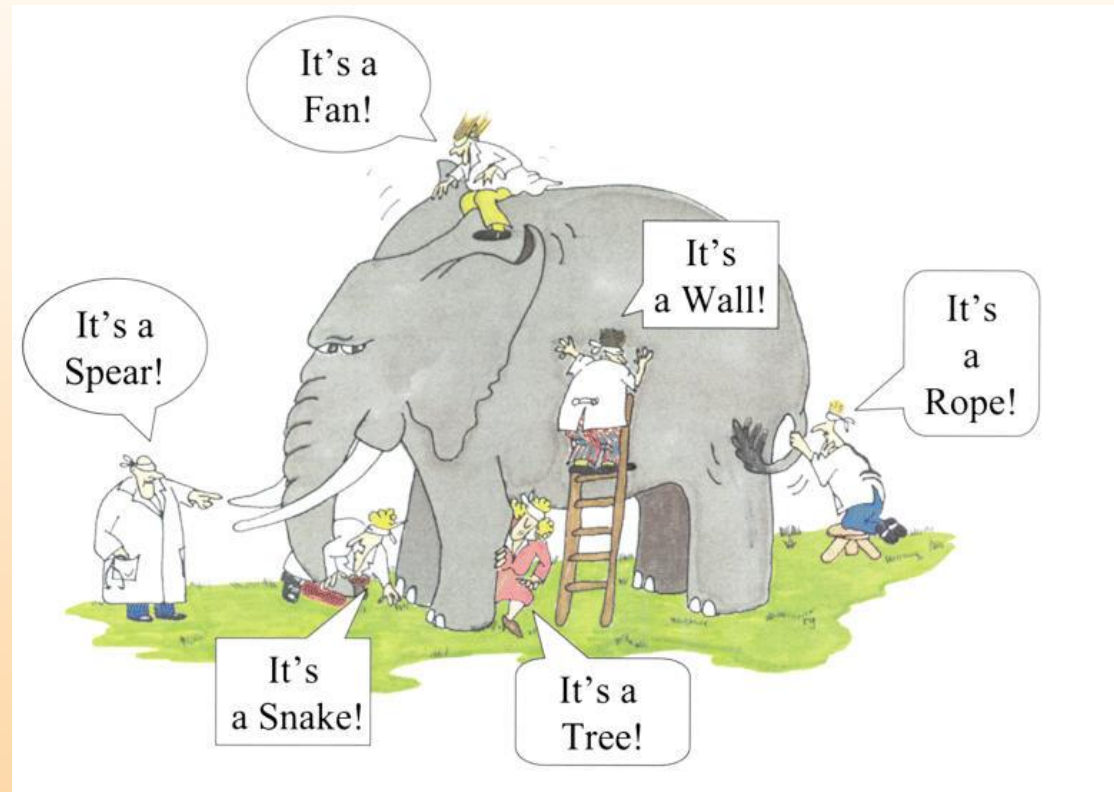
## 4. FOURTH LEVEL INTEGRATION AND SYNTHESIS

At the highest level, there is a conscious attempt to integrate material from various fields of knowledge into **“a new, single, intellectually coherent entity.”** This demands an understanding of the **epistemologies and methodologies of other disciplines** and, in a team effort, **requires building a common vocabulary.**

# Synthesis → → → Synergy



# But, WHY Interdisciplinarity?



- Interdisciplinary programs sometimes arise from a shared conviction that the **traditional disciplines are unable or unwilling to address an important problem....** They may also arise from new research developments, such as nanotechnology, which cannot be addressed without combining the approaches of two or more disciplines.



# But, WHY Interdisciplinarity?



- ▶ Interdisciplinarity is often seen as **a remedy to the harmful effects of excessive specialization.**
- ▶ Many would argue that interdisciplinarity is entirely indebted to those who specialize in one field of study—that is, without **specialists**, interdisciplinarians would have no information and no leading experts to consult.

# But, WHY Interdisciplinarity?



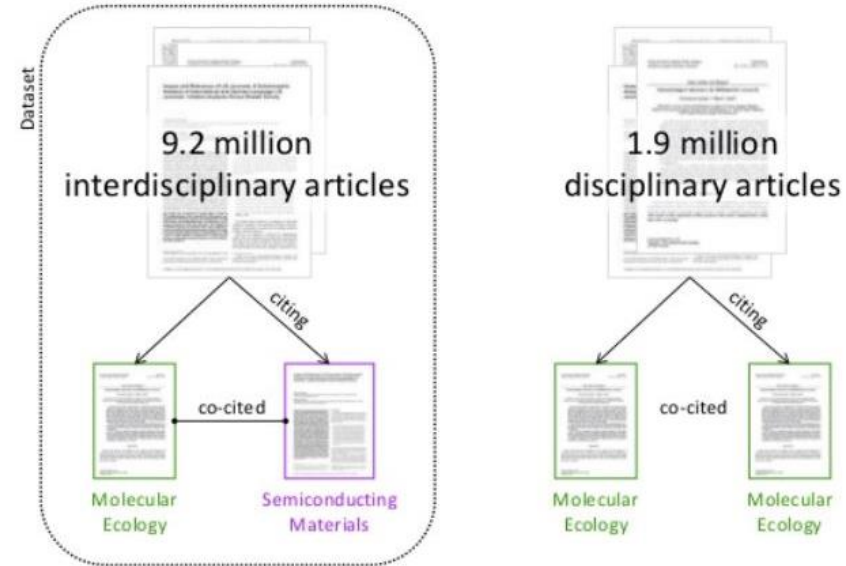
- ▶ Others place the focus of interdisciplinarity on **the need to transcend disciplines, viewing excessive specialization as problematic both epistemologically and politically.**
- ▶ When interdisciplinary collaboration or research results in new solutions to problems, much information is given back to the various disciplines involved. **Therefore, both disciplinarians and interdisciplinarians may be seen in complementary relation to one another.**

# Interdisciplinary Impact

Findings support the assumption that interdisciplinary research leads to results greater than the sum of its disciplinary parts (i.e., synergy).

<http://www.slideshare.net/StefanieHaustein/haustein-s-2016-analyzing-measuring-and-visualizing-the-success-of-interdisciplinarity>

## Dataset and Methods



Larivière, V., Haustein, S., & Börner, K. (2015). Long-Distance Interdisciplinarity Leads to Higher Scientific Impact. PLoS ONE, 10(3), e0122565.

## Conclusions

- Co-citing articles from different subdisciplines leads to above average citation impact.
- The more diverse the knowledge base, the higher the citation impact.

# MSC Synergy & Interdisciplinary Impact

1. 2001 **Seville Hering**, 2<sup>nd</sup> committee member Physical Education, Health & Recreation  
*Communicative Coaching Styles: Developing a 21<sup>st</sup> century model*
2. 2004, **Jill Jordan**; 2<sup>nd</sup> committee member Nancy Birch, Decision Science  
*Spokane Employer Attitudinal Differences Regarding Persons with a Mental Illness*
3. 2005 **Bryan Ryerse**; 2<sup>nd</sup> Committee Member Kristin Edquist, Political Science  
*Winning Women in Washington State Legislature: Strategies of Achieving Electability*
4. 2007 **Tracy Palm**, 2<sup>nd</sup> Committee Member Tony Flinn, English  
*Cultural Studies, Food as Entertainment*
5. 2008 **Hannah C. Pedersen**; 2<sup>nd</sup> Committee Member Russell Kolts, Psychology  
*The Virtual Couple: Negotiating the meaning of a relationship in "Online America"*
6. 2009 **Tracey Whybrow**, 2<sup>nd</sup> Committee Member Kevin Pirch, Psychology  
*Taking Aim at Trigger Words: Restoring Interpersonal Intimacy Through Metaphoric Reconciliation*
7. 2009 **Marya Hammer**, 2<sup>nd</sup> Committee Member Dana Elder, English and Honors  
*Accepting the nomination: A Genre Analysis of Speeches from Kennedy to Obama*



# Synergy & Interdisciplinary Impact at EWU

8. 2011 **Edmundo Aguilar**; 2nd Committee Member Kevin Decker, Philosophy  
*Retro-technology in Public Speaking courses: The use of audio-only recordings to improve student message focus and reduce speaking anxiety*
9. 2011 **Matthew Gill**; 2nd Second Committee Member Tony Flinn, English Department  
*Re-examining Public Relations at Eastern Washington University*
10. 2011 **Rachel Roig**; 2nd Committee Member Maria Hernandez-Peck, Aging Studies  
*Communication, Interaction, and the Aged Woman*
11. 2011 **Cynthia Abbott**; 2nd Committee Member Pui-Yan Lam, Sociology  
*On the Hunt for Stigma: Framing & Visual Rhetoric in News Media Accounts of the Escape of Phillip Paul*
12. 2013 **Jeslyn Lemke**; 2nd Committee Member Jamie Tobias Neely, Journalism  
*Free press, torture and the way forward: one journalist's story of reporting in Ethiopia's totalitarian regime*
13. 2013 **Nicole Ridnour**; 2<sup>nd</sup> Committee Member Theresa Martin, Psychology  
*Transcending the status quo: a communication perspective for improving health behaviors at Eastern Washington University*

# Synergy & Interdisciplinary Impact at EWU

14. 2016 **Amber Johnson**; 2<sup>nd</sup> Committee Member Jessica Willis, Women's & Gender Studies  
*Research that Matters: Transforming Community Based Education through Feminist Pedagogy and Public Scholarship*

15. 2016 **Lindsey Klemmer**; 2<sup>nd</sup> Committee Member Sally Winkle, Women's & Gender Studies  
*Mission-Driven Communication for the Non-profit Organization: A Case Study of the Downtown Spokane Partnership*

16. 2017 **Phillip Tennison**; 2<sup>nd</sup> Committee Member Ginelle Hustrulid, Visual Comm Design  
*'Existing Without Permission': A Visual Rhetorical Analysis of Banksy's NOLA Children and the Betrayal of Authority*

17. 2017 **Robin Johnson**; 2<sup>nd</sup> Committee Member Bill Youngs, History  
*The Monumental Turn: Metonymic Synergy between the Statue of Liberty and 'The New Colossus.'*

18. 2017 **Daniel Roemer**; 2<sup>nd</sup> Committee Member Kevin Decker, Philosophy  
*'Rage, Rage Against the Dying of the Light': A Rhetorical Analysis of the Role of Existentialism, Grieving and Space in Science Fiction Films*

# Synergy & Interdisciplinary Impact at EWU

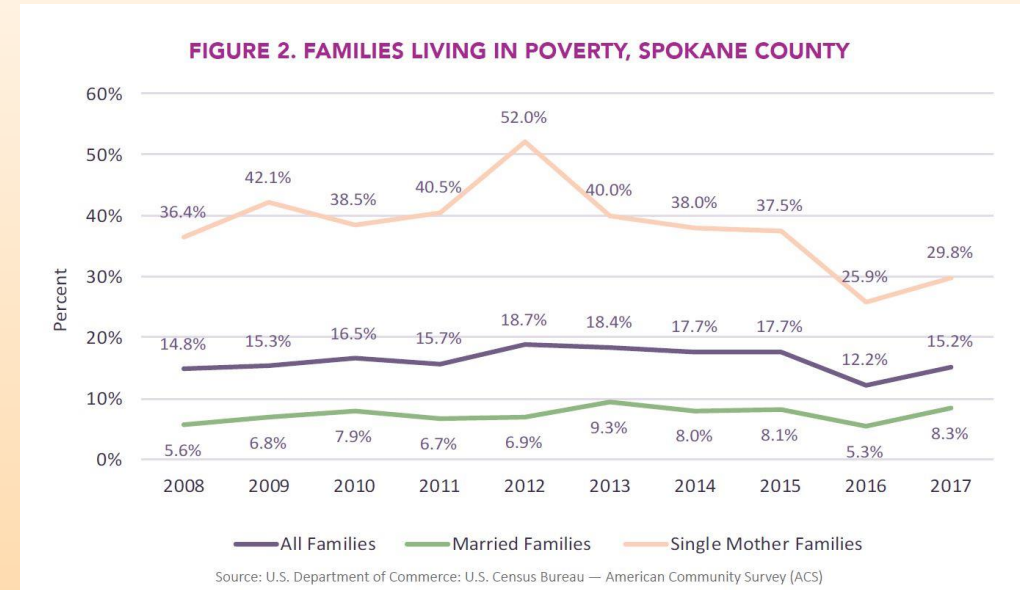
19. 2017 **Keoni Wong** Senior Thesis; Senior Capstone Supervisor Grant Smith, English  
*The Impact of I-502 on Washington State's Economy, Federal Regulatory Conflict, and Socio-Cultural Acceptance*
20. 2018 **John Collett**; 2nd Committee Member Chadron Hazelbaker, Wellness & Movement Sciences  
*Reinforcing Narrative to Benefit the Brand: An Instagram Case Study of Seattle Seahawks Quarterback Russell Wilson*
21. 2018 **Patrick McHugh**; 2nd Committee Member Martín Meráz-García, Chicana/o Studies  
*From 'Sacred and Undeniable' to 'Self-Evident': A Rhetorical Analysis of Thomas Jefferson's Original Draft of the Declaration of Independence*
22. 2019 **Audrey Oswald**; 2nd Committee Member Elizabeth Kissling, Women's and Gender Studies  
*Raising Arizona: A Visual Rhetorical Analysis of Kyrsten Sinema's and Martha McSally's 2018 Campaign Announcement Videos*
23. 2019 **Michael Watts**; 2nd Committee Member Robert Zinke, Public Administration  
*Expert Control Awareness: The Initial Discussion and Necessary Consideration of Engaging in Export Control Practices at Eastern Washington University*

# Synergy & Interdisciplinary Impact at EWU

24. (2020) **Natalie Cardenas**; 2nd Committee Member Women's and Gender Studies

*Agency Use and Evaluation of the Women Helping Women Fund Report on the Status of Women and Children in Spokane County*  
[working title]

25. (2020) **Kiara Wiedman**; 2nd Committee Member Emily Vickers, Music Education Library  
*Rhetorical Critical and Musicological Analysis of the intergenerational appeal of Queen's 1975 Bohemian Rhapsody*  
[working title]





# **An Interdisciplinary Agenda**

- ***One Last Time: Unheeded Words of Warning in George Washington's 1796 Farewell Address*** (2020 NWCA conference paper)
- **The Essential Mastery of Rhetorical/Critical Approaches as Antidote to the Post-Fact Paradox** (2020 NCA conference paper)
- **Developing career preparation competence through community-based education** (2020 Community Engagement Institute submission, co-author with Assistant Vice President for Student Services and Executive Director for Career Development, Virginia Hinch)
- **Self-Inventory and the Impact on Networking Skills** (2020 FUSE Career Fair Grant Submission)
- **Stealth Latina: navigating assumptions and negotiating status in academic settings** (2020 submission to International Civil Discourse Institute)
- **Online Education Resources [OER] Implementation Project** at Eastern Washington University (with EWU Instructional Technology)