

# MOLSAMP

MISSOURI LOUIS STOKES ALLIANCE FOR MINORITY PARTICIPATION

MOLSAMP UNDERGRADUATE RESEARCH SYMPOSIUM

2018 ANNUAL REPORT



Dobbie Herrion. Ed.D.

Marnice Anthony, MAT, Ed.S.



---

## ACKNOWLEDGEMENTS

---

We would like to acknowledge the invaluable contribution, assistance, and support we received from members of the Alliance in preparing for this conference. The energy and expertise that went into all aspects of making this a successful experience for students majoring in STEM in the state of Missouri were greatly appreciated.

We are also grateful to the NSF for their support and guidance of MOLSAMP. We are especially grateful to Dr. Leroy Jones for helping lead the discussion from a national perspective and offer insights into how our newly formed alliance can strengthen and add value to our respective institutions.

We would also like to acknowledge the faculty, presenters, and volunteers for making this a reality and transformative experience for our students.

Finally, we would like to acknowledge and thank our conference committee for their tireless work ethic, persistence, and dedication to making this inaugural conference successful and setting the bar high!

---

## NATIONAL LSAMP OVERVIEW

---

The Louis Stokes Alliances for Minority Participation (LSAMP) program is an alliance-based program. The program's theory is based on the Tinto model for student retention<sup>1</sup>. The overall goal of the program is to assist universities and colleges in diversifying the nation's science, technology, engineering and mathematics (STEM) workforce by increasing the number of STEM baccalaureate and graduate degrees awarded to populations historically underrepresented in these disciplines: African Americans, Hispanic Americans, American Indians, Alaska Natives, Native Hawaiians, and Native Pacific Islanders.

The LSAMP program takes a comprehensive approach to student development and retention. Particular emphasis is placed on transforming undergraduate STEM education through innovative, evidence-based recruitment and retention strategies, and relevant educational experiences in support of racial and ethnic groups historically underrepresented in STEM disciplines.

The LSAMP program also supports knowledge generation, knowledge utilization, program impact and dissemination type activities. The program seeks new learning and immediate diffusion of scholarly research into the field. Under this program, funding for STEM educational and broadening participation research activities could include research to develop new models in STEM engagement, recruitment and retention practices for all critical pathways to STEM careers or research on interventions such as mentoring, successful learning practices and environments, STEM efficacy studies, and technology use.

Overall, the LSAMP program provides funding to alliances that implement comprehensive, evidence-based, innovative, and sustained strategies that ultimately result in the graduation of well-prepared, highly-qualified students from underrepresented minority groups who pursue graduate studies or careers in STEM.

---

## MOLSAMP EXECUTIVE SUMMARY

---

The Missouri Louis Stokes Alliance for Minority Participation (MOLSAMP) is a collaborative effort sustained by a coalition of six public universities (Harris-Stowe State University, Lincoln University, Truman State University, the University of Central Missouri, the University of Missouri St. Louis (UMSL), and the University of Missouri Columbia) one private university (Washington University), and one community college (St. Louis Community College) to significantly increase the number of underrepresented minority students, (URM) statewide who complete undergraduate and advanced degrees in science, technology, engineering, and mathematics, (STEM) fields. This goal will be accomplished through the implementation of a variety of activities and cohesiveness among the individual campuses to promote recruitment, retention and graduation of URM students.

### **ABOUT THE PROGRAM**

The Louis Stokes Alliance for Minority Participation (LSAMP) is an NSF sponsored program designed to broaden participation in science, technology, engineering, and

technology (STEM) disciplines and increase the number of students receiving baccalaureate degrees and ultimately graduate degrees in STEM disciplines.

### **MOLSAMP OBJECTIVES**

- Increase the total number of URM students graduating with STEM degrees by 125% over a 5 year period
- Increase the first and second year retention rates of URM students in STEM disciplines to at least 60%
- Increase the successful transfer of URM students from 2 to 4 year institutions by 25%
- Increase the number of underrepresented students entering graduate programs in STEM fields by 25%
- Harris-Stowe State University is one of eight colleges and universities to receive a five-year grant from MOLSAMP, which represents one of forty-one such programs sponsored by the National Science Foundation (NSF).

---

## EVALUATION FINDINGS

---

The following sections describe and evaluate the conference planning process, assesses the activities that took place during the conferences, and suggests future recommendations for future conferences

### **What went into planning the conference?**

The inaugural MOLSAMP Conference Planning Committee consisted of alliance members from Harris-Stowe State University, Lincoln University, and the University of Missouri Columbia. Committee members were tasked with finding a suitable location for the conference, marketing and branding activities, recruiting faculty, staff, volunteers, students, and industry professionals, organizing hotel logistics, and coordinating registration as well as flight information.

### **How many people registered for the conference?**

The registration process took place on the campus of Harris-Stowe State University through the coordinated efforts of the information technology department. Using internal software, attendees registered for both the conference and the hotel on-line and data was stored and disaggregated through Microsoft Excel. There were a total of 124 on-line registrations and approximately 15 on-site registrations. Registration was at no-cost for individuals

from alliance institutions and the cost of the hotel stay was greatly reduced to accommodate participants at a block rate of \$115 per night.

### **How and where was the conference marketed?**

Each alliance institution was tasked with marketing the event and recruiting students and professionals to attend. Specifically, the conference planning committee promoted the event through traditional means such as the St. Louis American newspaper and new traditional mediums such as Facebook and Twitter. The event was also heavily promoted through flyers, save the date cards, campus visits, and classroom presentations.





## Diversity is Key

One of the strengths of the MOLSAMP alliance is the diversity in culture, institutional climate, student composition and their level of preparedness for undergraduate research, and resources found at each of our institutions. As such, the conference planning committee was intentional in inviting and bringing together professionals and students from diverse backgrounds.

### \*Student Demographics

**Total Students:** 92

### **Locations:**

MO, IN, FL, and IL

### **Majors:**

Biology-46 Black Studies-1  
Chemistry-10 Computer Science-10  
Environmental Science-3 Physics-1  
Health Science-3 Mathematics-7  
Pre-nursing-1 Pre-Engineering-1  
Pre Med-1 Secondary Education-1  
Statistics-1 Applied Health-1  
Sustainability and Urban Ecology-4  
Wellness and Kiinesiology-1

### **Gender:**

Male-44

Female-80

### **Classification:**

Freshman-13

Sophomore-21

Junion-34

Senior-27

“Being able to offer diverse insights and perspectives to our students is incredibly important as they learn what it means to be a STEM major and eventually a STEM professional”

Project Director, MOLSAMP



### **Industry and University**

### **Representation:**

Honeywell

Thurgood Marshall College Fund

State of Missouri

KIPNspire Group

NASA Johnson Space Center

Washington University Admissions

SIUE Graduate School Admissions

UMSL Graduate School Admissions

Mizzou Graduate School Admissions

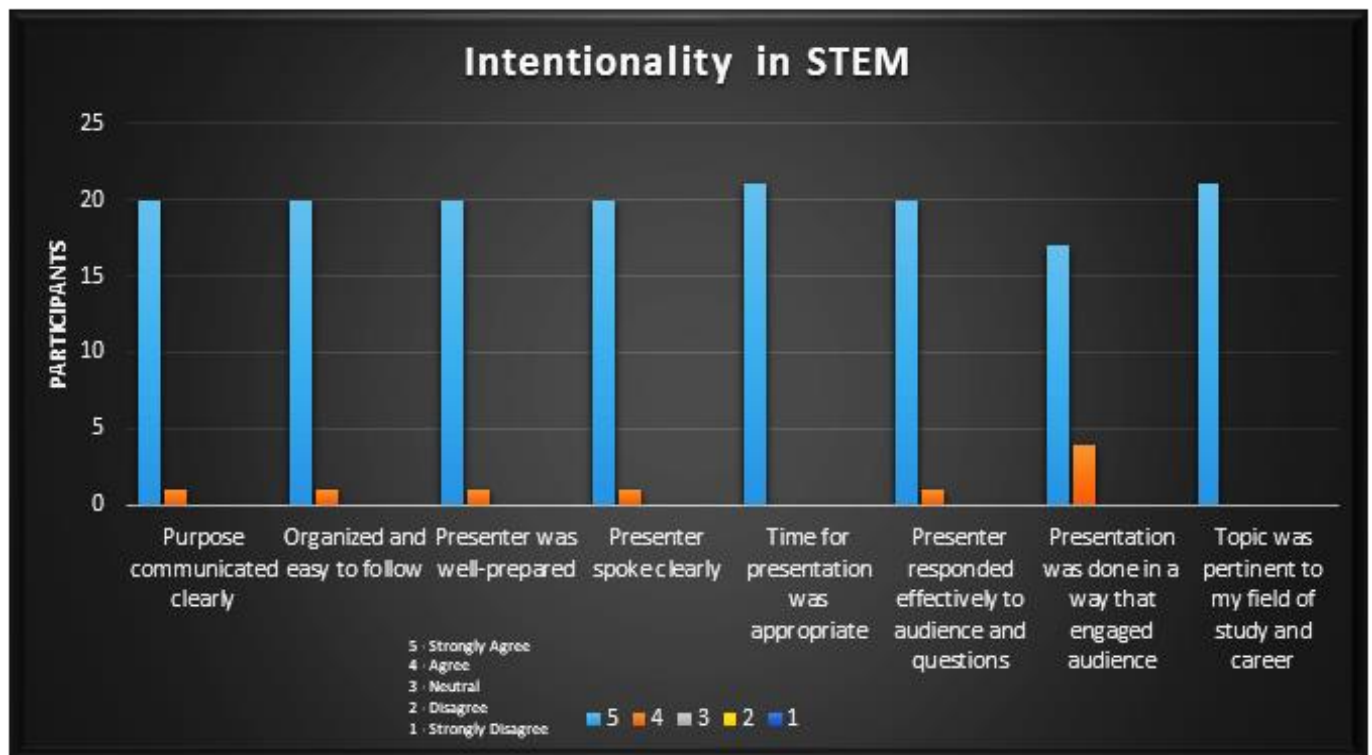


## Quantitative and Qualitative Data Analysis:

Industry as well as university professionals hosted a variety of diverse workshops that addressed topics such as being intentional on succeeding in STEM, transitioning into a career field, and effective communication to name a few. This section reports both qualitative and quantitative survey results for each workshop that was attended.

### Intentionality in STEM

Intentionality is key in moving from good to great! What will you accomplish in STEM? How will you use your talents? How do you not only start, but also finish strong? The goal of this workshop will be to challenge, inspire, and instruct you on how to excel through Intentionality.

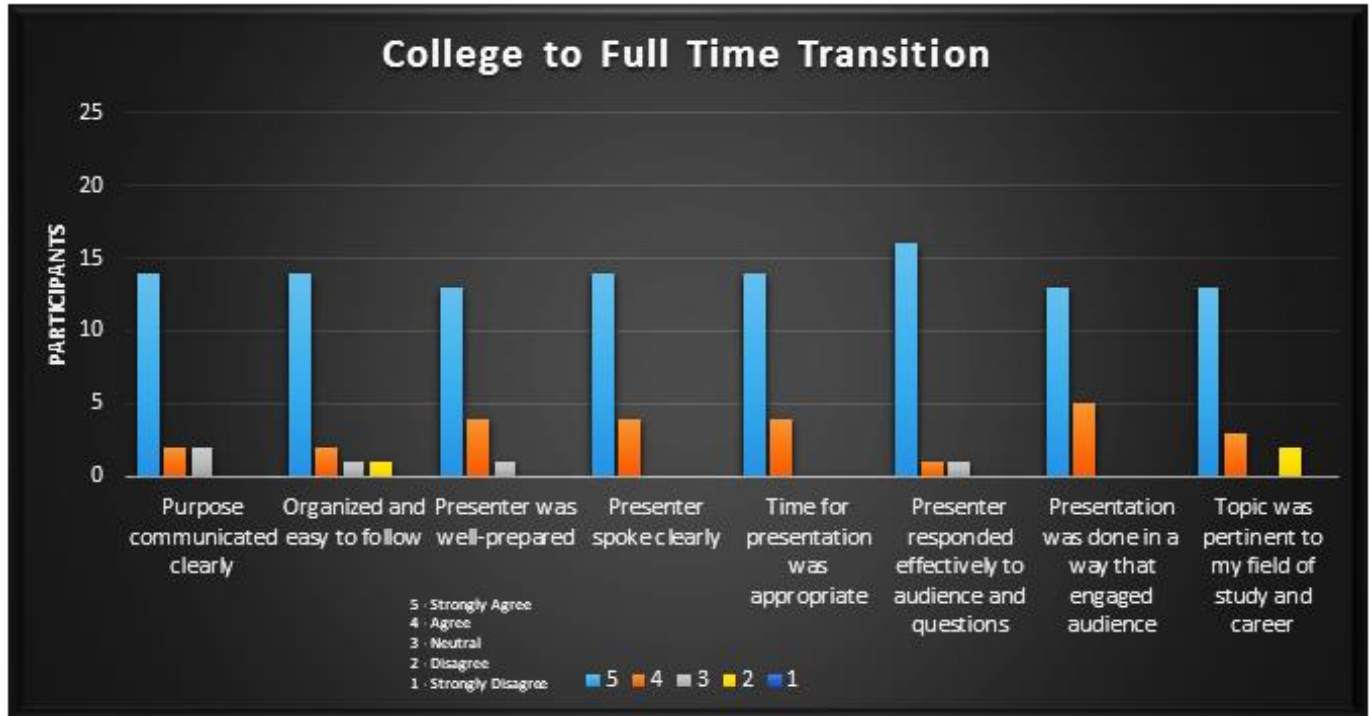


#### Comments:

Speaker was amazing  
As a future engineer, beneficial  
I really liked the SWOT "chart"  
I plan to make a vision statement  
Great information  
This was very informative  
Personal stories contributed to subject  
Insightful, made me think  
Thanks for the tools for success  
I am encouraged to look for scholarships  
Helpful and inspiring

## College to Full Time Transition

It can be challenging to transition from the freedom of college to working full-time. What do you need to take into consideration before beginning that first job? Join Honeywell as recent graduates discuss tips for their transition as well as how they set themselves up for success with internships and their full-time job searches.



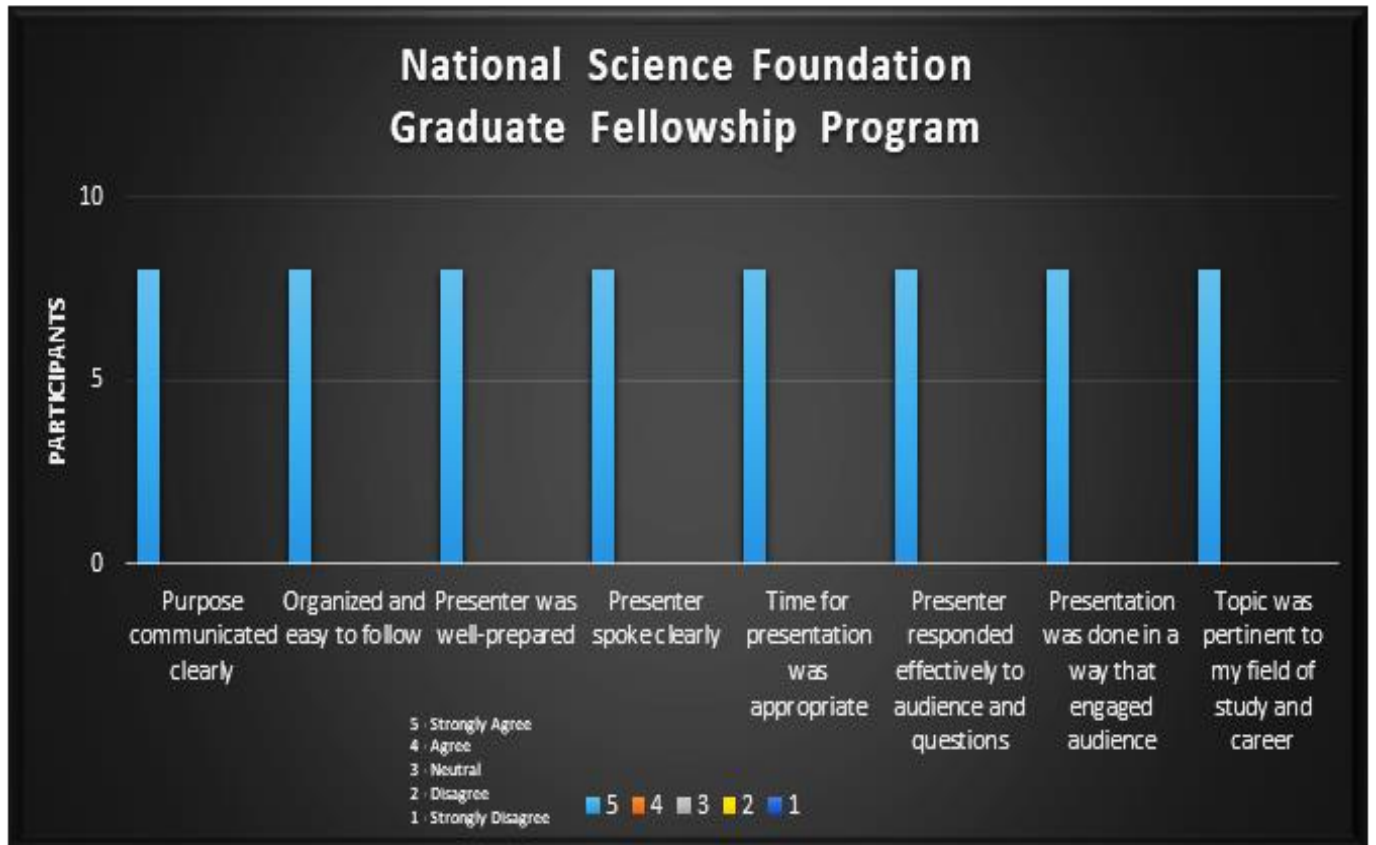
Comments:

- This should be a session for everyone
- Very informative, helped me think about the interview process
- Great session, practical and applicable
- Gave a lot of personal situations that helped me understand transition



## NSF Graduate Fellowship Program

All proposals submitted to the National Science Foundation are evaluated on their intellectual merit (strength of the research) and their broader impacts (benefit to society). This workshop will focus on how to incorporate outreach and engagement into the NSF Graduate Research Fellowship program. Participants will gain a better understanding of the NSF broader impacts criterion and how to create an effective personal strategy for engagement.

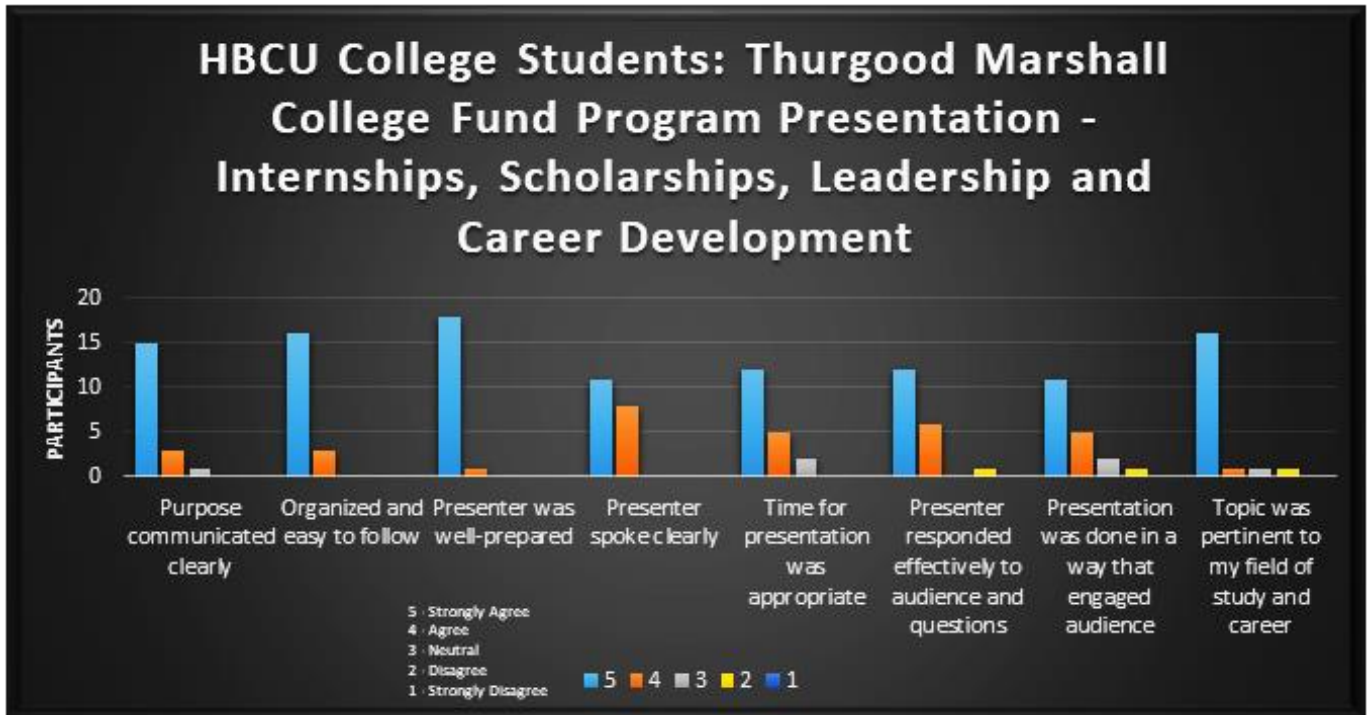


Comments:

Extremely helpful, useful for my future  
I learned a ton, that I don't feel I've learned anywhere else  
Super great and really helpful  
Gave a lot of resources  
Really imparted a sense of urgency  
Good information  
Interesting and informative  
Made it easy to ask question  
I learned how to move forward to graduate school

## TMCF: Internships, Scholarship, Leadership, and Career Development

Thurgood Marshall College Fund (TMCF) is a non-profit organization based out of Washington, DC that serves the 47 publicly-supported Historically Black Colleges and Universities (HBCUs). TMCF is proud to offer a variety of scholarships, internships, networking and recruitment opportunities, and entrepreneurial and professional development conferences for HBCU students. Through these programs offered to students TMCF is able to uphold our mission of increasing access, retention, and graduation rates at our schools, and connecting students with outstanding leadership qualities to great careers.

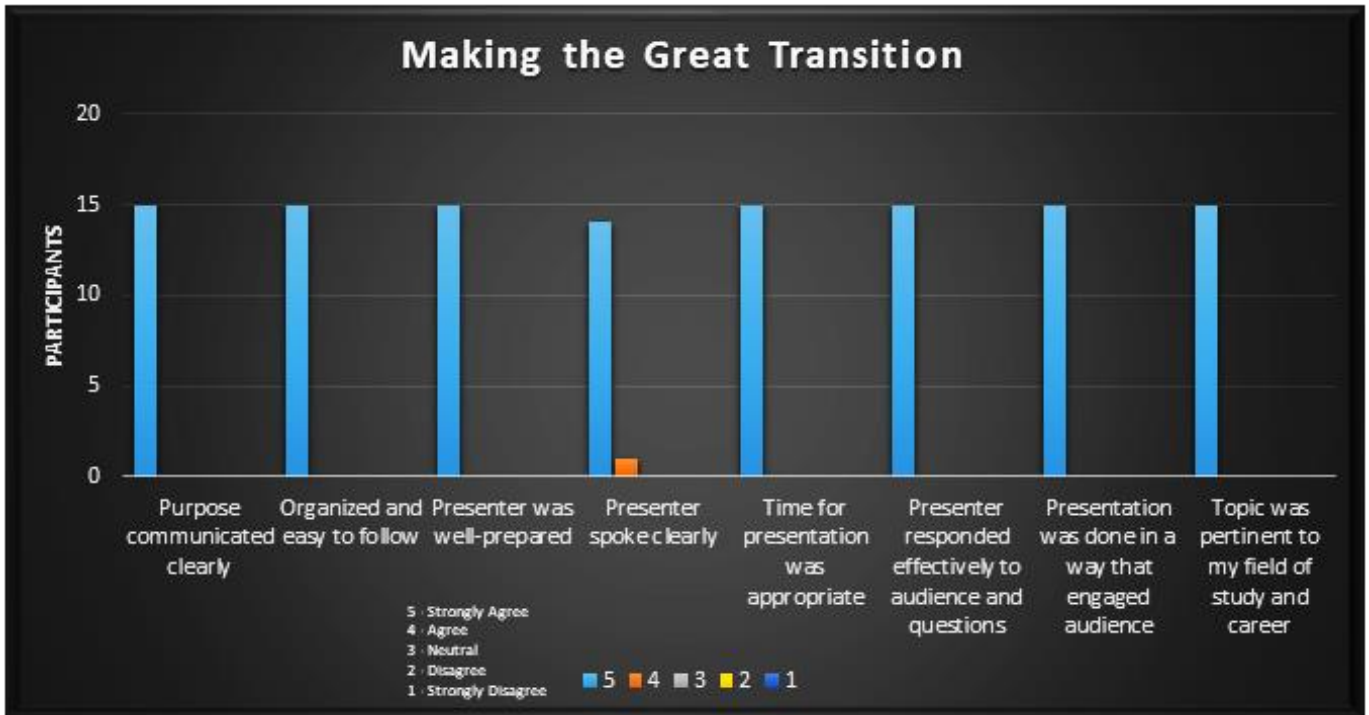


Comments:

- Great information
- Very informative
- Gave us information about helpful resources
- Don't attend a HBCU
- Spoke a bit fast
- Great presentation, information was needed
- Great information, understandable that time ran short

## Making the Great Transition

This workshop will provide tactical strategies that can be applied well before crossing the stage. These skills will help the collegiate student and young professionals launch their careers towards greatness. Their families matter, their relationships matter, their friends matter, but I'm extremely passionate about equipping our next generation of leaders with the necessary skills to make their #CareerMatters.

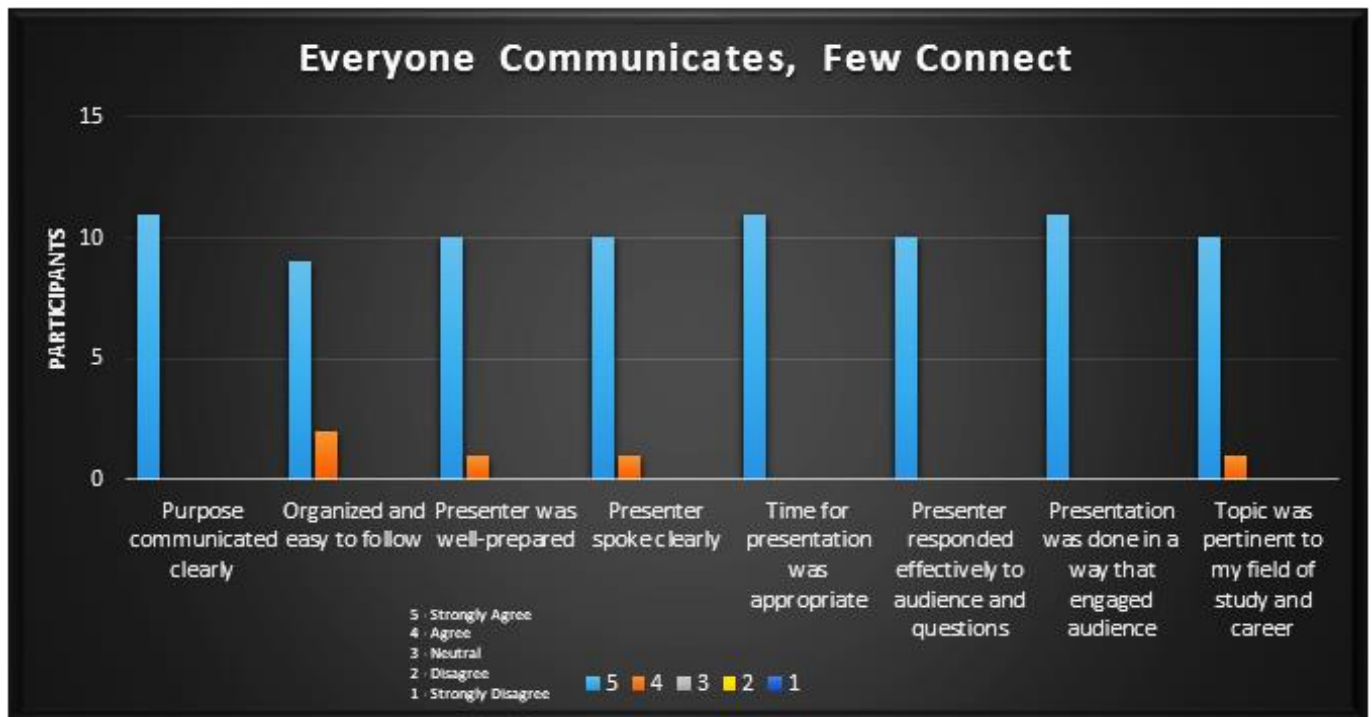


### Comments

Helpful, conveyed the importance of establishing your wants, realities  
Excellent and real for students and faculty  
Great audience involvement  
Great speaker, I appreciated the content  
This session really helped in how to present myself  
I really liked the examples, interactive

## Everyone Communicates, Few Connect

Communication is becoming a lost art form, and connecting has not been fully explored. Learn powerful art of connecting and watch your networks increase and your relationships soar! To be successful and reach your full potential, you cannot do it alone. Learn to genuinely connect with others and experience the reward of authentic personal and professional relationships. Tina E. Grimes is a natural connector who teaches others to do the same.



### Comments:

Excellent connection w/students and audience  
I wish session had focused more on the how vs. why  
Overall it was great  
Very enthusiastic, approachable  
Perhaps have sample templates  
The activity was very helpful  
Her saying have presence is memorable  
I admire energy and ability to engage her audience  
Attitude and willingness gave me a better understanding

---

## DATA ANALYSIS AND RECOMMENDATIONS

---

### Data Analysis

Survey results indicated that overall, participants overwhelmingly agreed or strongly agreed with the eight survey questions. Varying degrees of satisfaction were most notable in the Thurgood Marshall College Fund workshop and the College to Full Time Transition workshop conducted by Honeywell. While a majority of participants strongly agreed with the survey questions in both sessions, several disagreed with the extent to which the topic was applicable to their career field, how well the presentation was organized, how engaging the presenter was, and how responsive the presenter was. Specifically, qualitative data captured from the TCMF workshop suggests that some students did not attend an HBCU, therefore making the information somewhat irrelevant, while others felt that the information was presented too fast.

### Recommendations

1. *Plan Early.* Begin forming a planning committee the summer prior to the official conference date. Committee members should be representatives from the Alliance as well as faculty and staff on the hosting campus.
2. *Begin Branding MOLSAMP.* MOLSAMP is unique in that it captures and reports data on all URM STEM students in MO. As such, branding the program as one that crosses all STEM disciplines and works in conjunction with other

STEM or NSF sponsored grants will be helpful in creating an identity on campus and excitement among students.

3. *Create a culture of expectation among faculty, staff, and students.* Increasing the state's graduation rate and enrollment figures is a lofty goal, but certainly attainable. In order to do so, it must be an expectation among faculty that not only will their URM STEM students actively participate in the conference, but that a strong faculty presence from the host institution will be seen as well. Research suggests that the more engaged students are, the more likely they'll be retained. Faculty support will be key to student recruitment and engagement.
4. *Location, Location, Location.* Identify your location as soon as possible and reserve the date. Also, begin working with the staff in advance to reserve rooms at a block rate, set up breakout rooms, the menu, and reserve rooms and other hotel logistics.
5. *Market the event asap and as often as possible.* There will be several conferences and events competing for STEM students. Therefore, marketing the conference often and getting commitments from

presenters, students, and faculty early will be very important. Marketing should be strategic, segmented, and targeted. Use traditional as well as nontraditional means to capture the attention of the audiences (faculty, staff, community members, students, administrators). Each segment responds differently to different forms of advertising. Assign committee members a segment to target and research best practices for reaching that particular segment of the population.

6. *Identify the Keynote soon!* Well known speakers are very busy, can be quite expensive, and get booked well in advance. Identify someone with a reputation for connecting with students who has a foot in the field of STEM at least six months prior to the event.
7. *Solicit Volunteers.* Conference have a million moving parts and require a lot of hands on deck. Identify and train volunteers to judge poster and oral presentations, put swag bags together, make lanyards, moderate session, and collect surveys.

## Conclusion

1. *MOLSAMP is off to a great start!* The turnout and support for the Inaugural conference was fantastic. The opportunity for students and faculty to connect with others who share similar goals and research

interest was an objective that the Alliance certainly met. Overall, students were very pleased with the conference and are looking forward to 2019!

2. *Alliance-wide support was not fully realized.* Meeting the objectives of the grant cannot be reached without the support and cooperation of all alliance institutions. While several institutions contributed a great deal of time, students, and resources, others were either noticeably absent or failed to bring a lot of students. Hopefully the information presented in this report will serve as a guide to help other alliance institutions in the areas they may be struggling with.



A complete collection of conference photos can be found at:

<https://onedrive.live.com/?authkey=%21ADg1wHzB%2D%2DGKhzQ&id=86B420297C42178B%2124381&cid=86B420297C42178B>