



# **PUBLIC EDUCATION AND PROFESSIONAL ADVOCACY FOR THE MLS PROFESSION**

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MLSP 6905 Capstone Project Presentation

# Project Thesis Statement

- Despite a growing need for laboratory test results, the Medical Laboratory Sciences (MLS) profession suffers from a lack of public awareness.
  - Significant contribution to professional issues
- A variety of resources may effectively support efforts to educate members of the general public about MLS.

# Literature Review / Background

- High/Increasing
  - 25,900 new MLS positions needed every year from 2020-2030
- Low/Decreasing
  - Number of practicing professionals relative to demand
  - Number of accredited training programs
  - Number of applicants to existing programs
  - Availability of clinical rotations for students

# Literature Review / Background

- MLS: A “Faceless” Profession
  - General lack of patient-facing interactions
  - Students interested in healthcare often do not know about the MLS profession
- Outreach and advocacy are essential
  - Bolster long-term recognition and support
  - A variety of accessible educational resources are essential

## Materials & Methods

- Two resources created
  - Simulated Activity
    - Designed to introduce ABO tube-typing methods and concepts
    - Shared during a Graduate Program Fair on 10/15/21
  - MLS Website
    - Created using Google Sites
    - Shared during an online presentation for students interested in MLS on 11/10/21

## Results: Simulated Activity

Figure 1: Interactive Simulation Activity



Figure 3: Activity Design (Test Tube Rack)



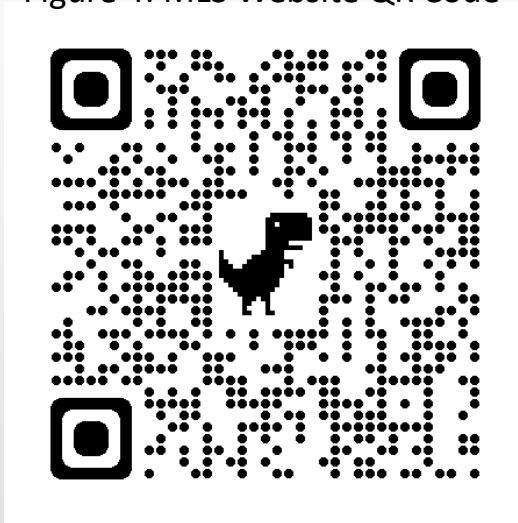
Figure 2: Activity Design (Tube Reactions)



Note: The top tube represents a negative (0) reaction and the bottom tube represents a positive (4+) reaction

## Results: MLS Website

Figure 4: MLS Website QR Code



- 5 pages:
  - “What is MLS”
  - ”History and Impact”
  - “Inside the Lab”
  - “The Road to MLS”
  - ”Learn More”
- URL: <https://sites.google.com/umn.edu/mls/what-is-mls>

Table 1: Average User Engagement Time Per MLS Website Page

	Welcome to MLS (Home Page)	History and impact Page	Inside the Lab Page	The Road to MLS Page	Learn More Page
Average Engagement Time (Seconds)	45	19	154	111	9

Note: Results collected from 11/10/21-11/17/21 from 9 unique users

## Results: MLS Website

Figure 5: MLS Website Home Page



Welcome to MLS

[What is MLS?](#) [History and Impact](#) [Inside the Lab](#) [The Road to MLS](#) [Learn More](#) [Q](#)

# Medical Laboratory Sciences

## What is Medical Laboratory Science?

Medical Laboratory Science (MLS), formerly known as Clinical Laboratory Science (CLS) or Medical Technology (MT), is a healthcare profession dedicated to the diagnosis, treatment, and prevention of disease. Medical Laboratory Scientists provide test results that aid physicians, nurses, and other healthcare professionals in the diagnosis and treatment of patients. Laboratory results are vital for the diagnosis of conditions such as cancer, diabetes, heart attacks, infectious diseases, and more.

Examples of laboratory tests performed by Medical Laboratory Scientists include:

- Identification of bacteria, viruses, fungi, and parasites that cause infection
- Detection of cardiac markers associated with heart attacks
- Identification of blood types and compatibility for blood transfusions
- Analysis of abnormal red blood cells and white blood cells found in conditions such as leukemia



## Discussion / Conclusion

- Resource variety is important
- Students demonstrated interest in specific information about ways to become an MLS
  - May differ from individuals without a healthcare background
- Activity design: simple, quick, flexible
  - Leave room for questions and engagement

# Project Limitations / Next Steps

- Limitations
  - Activity/website primarily shared with healthcare-oriented students
  - Long-term use and impact of these resources requires further evaluation
- Next Steps
  - Demonstrate activity in other contexts
  - Share website with broader range of the general public

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