

# Evaluating Students' Use of Resources in a High-fail Course



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# BIO150 Course

- BIOL150 is an introductory biology course for science majors and students fulfilling a natural science with lab general-education requirement.
- BIOL150 is a high-fail course: course with DFW or fail rate substantially above college average (often >20–30% depending on institution).



# Question

What resources are needed to improve students' performance in BIOL150?

## Aims of Project

- Introduce a variety of learning resources
- Evaluate students' use of resources
- Evaluate students' perceived impact of resources on course performance

# Implementation

*Metacognitive  
Planning*

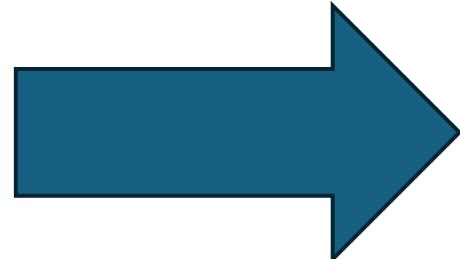
*Peer Learning*



Fall 2025 BIOL150 Course

*Concept  
Mapping*

*Elaborative  
Interrogation*

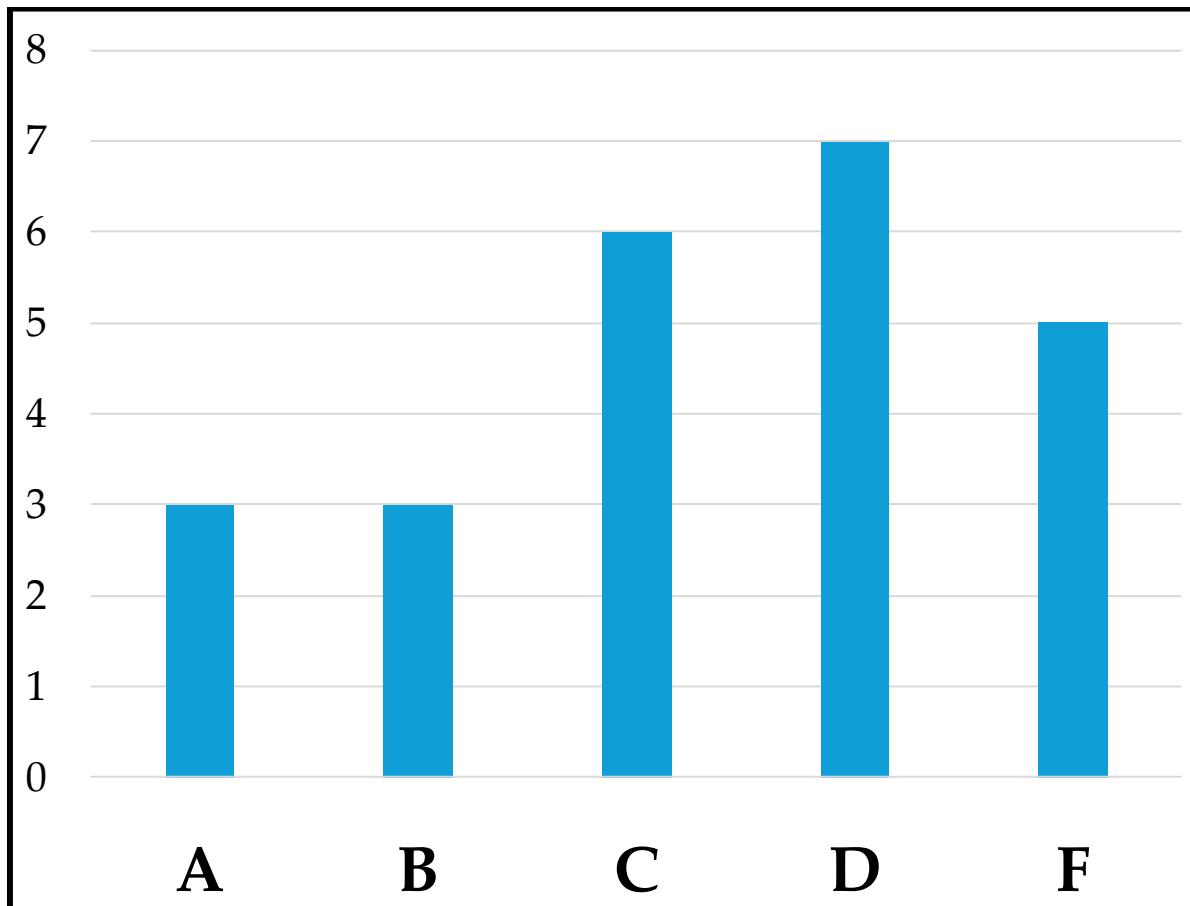


**Evaluation**

1. Course Outcomes
2. Student Surveys /Interviews

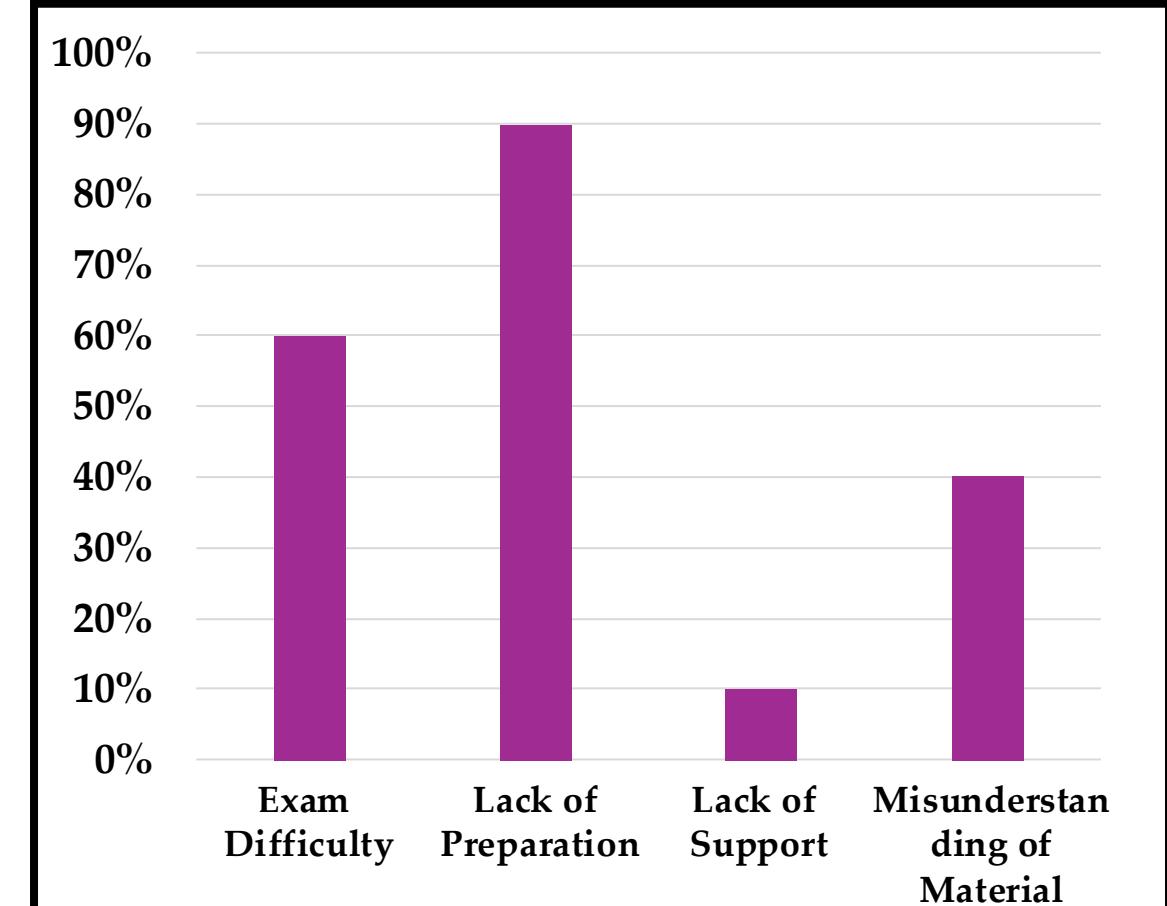
# Question 1: Why students fail (in their words)?

**BIOL150 Exam 1 Grades**



$n = 24$

**D/F Student Responses**



$n = 8$

# Implementation

*Metacognitive  
Planning*

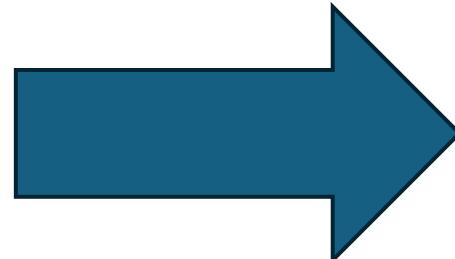
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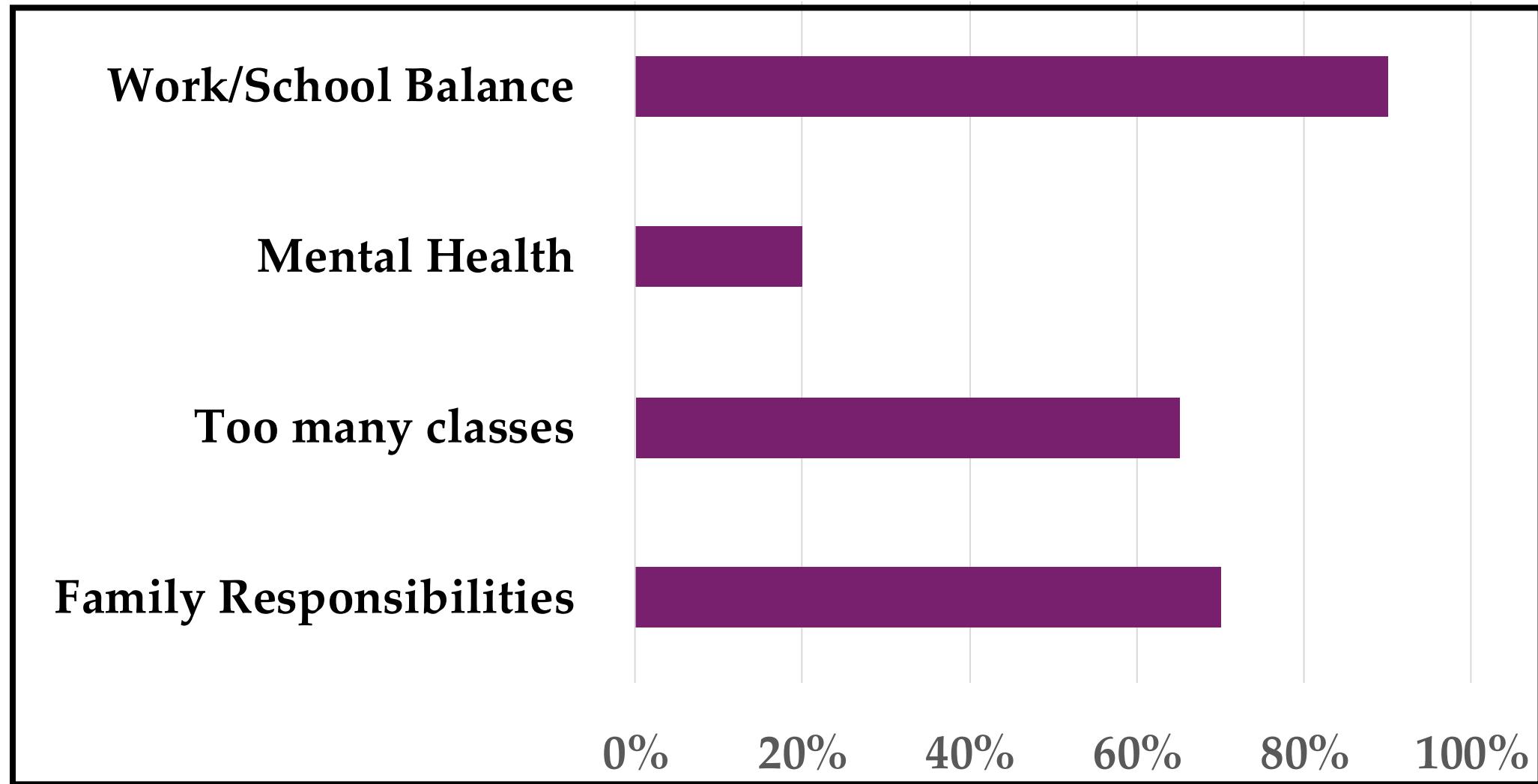
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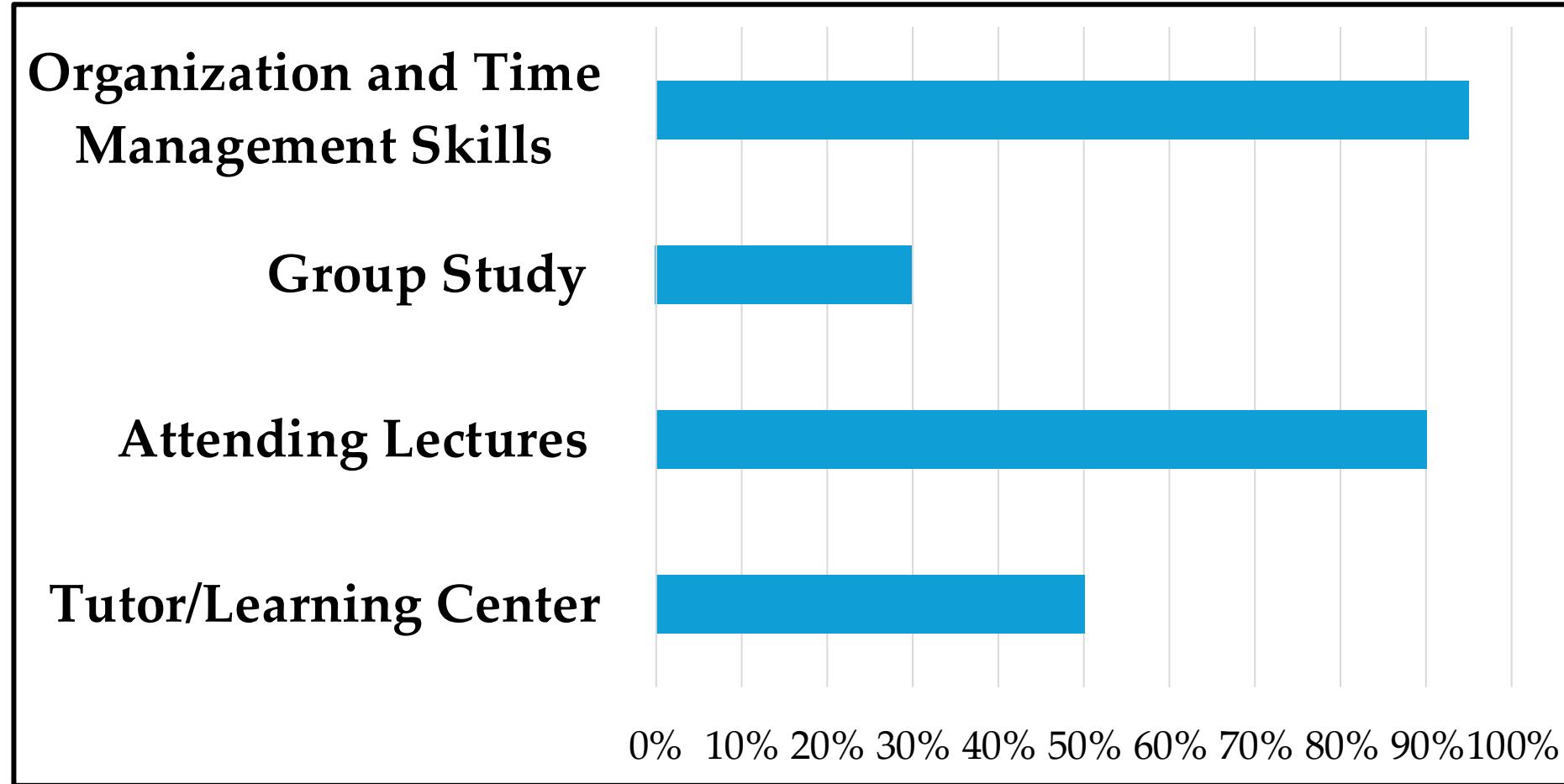
**Evaluation**

1. Course Outcomes
2. Student Surveys /Interviews

# Question 2: What barriers exist to student learning?



# Question 3: What resources were the most effective for students in the course?



# Conclusion

- Students stressed the importance of learning time management as the major key to success in BIO150.
- Students also highlight the importance of a safe, engaging, and supportive learning atmosphere.
- Students feel that the skills gained in the course are useful for the rest of their academic journey.

## Student Responses

“I feel like more professors should give their students time one on one and make it a safe space for student to feel Comfortable asking for help.” – Student 1

“ Personally, this class helped me improve my time management and study habits, which will be helpful in my future classes” - Student 2

Personally, this class helped me improve my time management and study habits, which will be helpful in my future classes  
– Student 3