



Master of Arts in Teaching

SCHOOL OF SPECIAL EDUCATION, LEADERSHIP, AND PROFESSIONAL STUDIES
(SELPS)

DEPARTMENT OF BIOLOGY

SCHOOL OF EARTH, ENVIRONMENT, AND SUSTAINABILITY

Our Team

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Master of Arts in Teaching

Master of Arts in Teaching program is an alternative pathway to teaching in PK-12 Missouri Schools.

- Must hold a bachelor's degree
- Earn a master's with initial teacher certification in two years.
- Coursework is predominantly online.
- Internships are conducted in a classroom setting relevant to the certification area.

Area of teaching certification	
Art K-12	Latin K-12
Biology 9-12	Mathematics 9-12
Business 9-12	Mathematics 5-9
Chemistry 9-12	Music Instrumental K-12
Chinese K-12	Music Vocal/Choral K-12
Earth Science 9-12	Physical Education K-12
English 9-12	Physics 9-12
Family & Consumer Sciences K-12	Science 5-9
French K-12	Social Science 9-12
German K-12	Social Science 5-9
Japanese K-12	Spanish K-12
Language Arts 5-9	Speech & Theater 9-12



Workshop Objectives

Goal:

Prepare future teachers to utilize differentiated instruction effectively in their classrooms by enhancing the effectiveness of the Master of Arts in Teaching (MAT) program. The program will examine courses within the program and modify coursework as needed to provide focused instruction and practical experiences in differentiated instruction. The refined coursework will better prepare MAT students for the challenges and expectations of teaching in diverse classroom environments.



Ms. Hannah Martin, MAT Student

Reflection on Experiences

- BS in Wildlife Conservation Biology (Spring 2023)
- Informal Educator at Wonders of Wildlife (2022-2024)
- Substitute Teacher at Nixa Public Schools (Spring 2024)
- MAT Program (Spring 2024)
- Provisional Teacher during student teaching (Fall 2024)



Definition

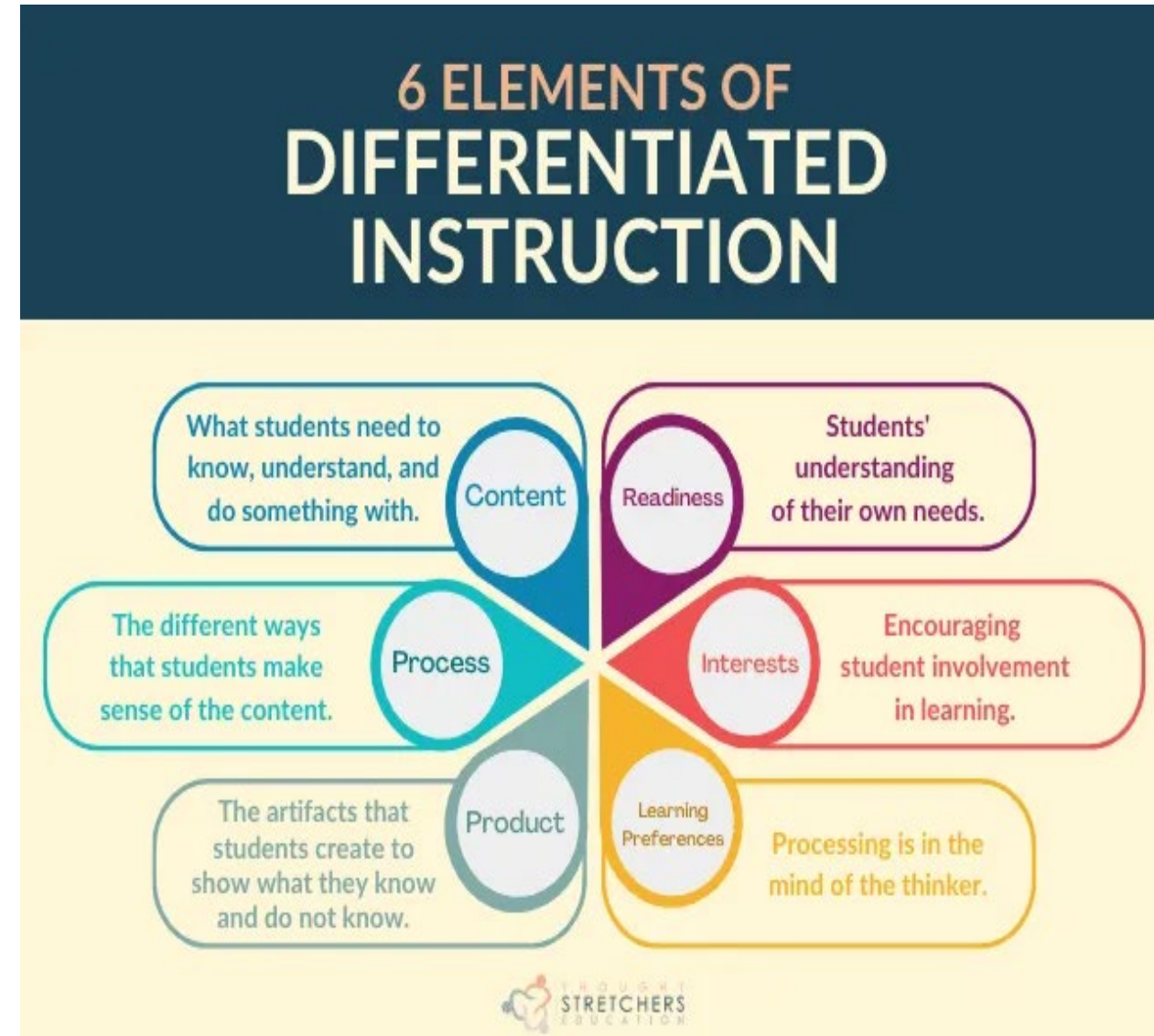
Differentiated Instruction:

Differentiated instruction is tailoring instruction to meet students' individual learning preferences, interests, and levels of readiness through thoughtful planning.

Areas of differentiation:

1. Environment
2. Content
3. Process
4. Products/Assessment

Original definition by Carol Tomlinson modified



Data Discussed



Student Teacher Surveys

First-year Teacher Surveys

Principal First-year Teacher Surveys



MEES
Missouri Educator
Evaluation System

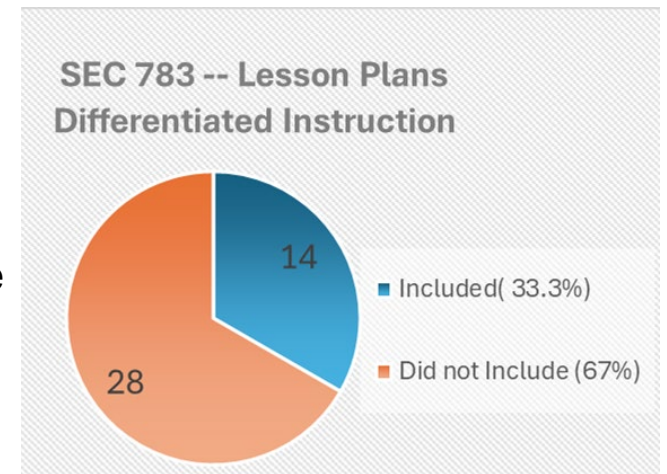


Coursework
SFR 751
SEC 783
SCI 783
SCI 784

III Data Discussed

SFR 751: This course engages students in a careful examination of teaching and learning. The course focuses on the principles and objectives of education; methods of meeting the diverse educational needs of today's students, techniques of teaching, and basics of lesson planning. This course is designed to give instruction in the practical aspects of teaching. Objective writing, classroom management theories, learning theories, and lesson planning are just a few practical skills necessary to be successful educational practitioners.

SEC 783 (MAT 75 hour Practicum): Of the total 42 initial lesson plans submitted by teacher candidates, only 33.3% (N=14/42) included either differentiated instructional strategies that are considered appropriate for the lesson and classroom students. Additionally, upon reviewing the reflective journals, less than 73% (N=26/37) of the teacher candidates documented instances where they observed the application of differentiated instructional teaching strategies. Conversations with the candidates revealed that a majority struggled with clarity on identifying the indicators of differentiated instruction during observations.



SCI 784–Lesson plans in SCI 784 with modifications.

After checking the Spring 2024 lesson plans for SCI 784 (32 weeks of lesson plans), 8 plans had some modifications. These modifications were limited to unit test modifications for students with IEPs.

Data Discussed

Student Teaching Surveys (SCI 784, SEC 784, end of student teaching semester)

Q7: Standard 2 Learning Growth and Development	Spring 2022 (N=8)		Spring 2023 (N=26)	
	Disagree Strongly Disagree	Agree Strongly Agree	Disagree Strongly Disagree	Agree Strongly Agree
I was prepared to design lessons that include differentiated instruction.	0.0 %	75.0%	11.54%	84.6%
I was prepared to implement instruction based on a student's IEP.	25.0 %	62.5%	19.23%	69.3%
I was prepared to modify instruction for English language learners.	0.0 %	75.0%	26.92%	69.2%
I was prepared to modify instruction for gifted learners.	0.0%	87.5%	19.23%	69.2%
I was prepared to create lesson plans to engage all learners.	0.0%	87.5%	11.54%	84.6%



Data Discussed

Missouri Educator Evaluation System (MEES): SEC/SCI 784 (Student Teaching)

Standard 2: Student learning, growth, and development - Differentiation of Instruction to Meet Students' Needs

Teacher candidates are rated on a scale of 1-4 (4 being the highest)

Score of 4: (Standard 2)

The teacher candidate adapts and develops the lesson according to the teaching environment/student responses



Score of 4: (2.1)

Adjusts strategies in the moment based on individual student needs

Score of 4: (2.2)

Uses individual student data or assessments to inform the selection and modification of strategies

Scores seem inflated. This is exactly the reason MEES was revised.

When our graduates start teaching in their own classrooms, the student-teacher candidates realize they are not as prepared as they originally thought.

It seems teacher candidates are rated on the MEES as “beginners” not based on the skills and knowledge they should have after years of teaching. “The expert in anything was once a beginner.” Teaching is a growth process.

Data Discussed

Student & Principal Surveys

A comparison of student teacher, first-year teacher, and principal competency rankings.

Upon completion of student teaching, student teachers rank themselves higher in the competencies listed below. However, both the first-year teachers and their principals rank them lower in the same competencies.

	First Year Teachers		Principals of First Year Teachers		Student Teachers		Cooperating Teachers (common questions only)	
	2022 (n=256)	2023 (n=259)	2022 (n=203)	2023 (n=221)	2022 (n=359)	2023 (n=314)	2022 (n=287)	2023 (n=332)
5	4.06	3.93	4.07	3.84	4.36	4.40		
6	3.43	3.31	3.98	3.81	3.95	4.02		
7	3.34	3.14	3.69	3.5	3.89	3.88		
8	3.42	3.28	3.79	3.62	4.01	3.94		
9	4.09	3.83	4.21	3.98	4.38	4.39		
10	4.27	4.01	4.24	4.1	4.51	4.44	4.56	4.55
11	3.95	3.83	4.03	3.85	4.34	4.31	4.50	4.39
12	4.09	4	4.2	3.95	4.44	4.44		
13	4	3.82	4.04	3.87	4.32	4.35		
14	4.01	3.88	4.04	3.94	4.37	4.37		

5 = Strongly Agree 3= Neutral 1 = Strongly Disagree



Preliminary Findings

Differentiation Strategies in Lesson Planning:

- Teacher candidates may not recognize the necessity of incorporating differentiation into instruction.
- Teacher candidates seem to omit differentiation in their lesson plans.
- During practicums, teacher candidates often report that they did not observe differentiation strategies being included in the lesson.
- Teacher candidates report they do not fully grasp the concept of differentiation or its importance in meeting diverse student needs.

Importance of Differentiated Instruction:

- MEES, IEPs, Student Teaching Survey, Survey of Graduates and Principals



Preliminary Findings

MAT Coursework:

- Modeling differentiated instruction is not integrated into many university courses or MAT coursework, leading to a lack of exposure for students.
- A standardized definition of differentiation within the program is required.
- Consensus is needed on how to explicitly integrate differentiation into coursework.
- There is a necessity to establish clear criteria for acceptable differentiation in lesson planning and teacher candidate work.

Summary: In our preliminary findings we discovered the following:

- 1. MAT teacher candidates may not have received specific instruction differentiation.**
- 2. It seems limited opportunities have been provided for the teacher candidate to observe the modeling of differentiated instruction.**
- 3. The program, has not explicitly defined differentiated instruction and expectations for integration of strategies into lesson planning.**



Items Chosen for Action

Look at available data in more detail and collect data over time

- Disaggregate data by demographics

Coursework:

- **SFR 751 (Introduction to Teaching and Learning)**—Add a component to the unit plan that requires students to include differentiation.
- **SEC 783 and SCI 783 (Practicums)**—Help teacher candidates focus their reflections during observations, specifically when looking for differentiated instruction. Include prompts such as “Looking for differentiation in content (adapted reading, graphic organizers, video tutorials)...”
- **SEC 783 and SCI 783 (Practicums)**— Coursework should include a focus on the MEES and differentiated instruction. Ensure that at least one lesson within the plan includes the deliberate application of differentiated instruction strategies. Reflect on the teaching process and outcomes of this lesson to enhance understanding and practice of differentiation.”
- **SEC 784 and SCI 784 (Student Teaching)**—Discussion of how to emphasize and document differentiated instruction during student teaching. (Consider pilot project).



Items that Need Action at Higher Levels than the Program

Curriculum Grant
Advisory Group Funding

FCTL course
development stipend



Follow-up Plans & Next Steps

Classroom
Management

Praxis Resources



Questions?



