



**Beyond “Sit and Get”: Kindergarten
Teacher Response to Contextualized
Professional Development Workshops on
STEAM Teaching**

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Agenda


- Background
- Current Study
 - Methods
 - Data & Analysis
 - Results/Findings
- Conclusions
- Questions





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Background

- PD experiences are **essential for improving** teacher & student success, however traditional PD formats are lacking
- Specialized training combined with **on-the-job coaching** improves early childhood teachers' competencies (Sheridan et al., 2009)
- Effective PD activities occur **on-site** and include opportunities for applying new knowledge directly in the classroom through **active learning** (Birman et al., 2000; Zaslow et al., 2010)

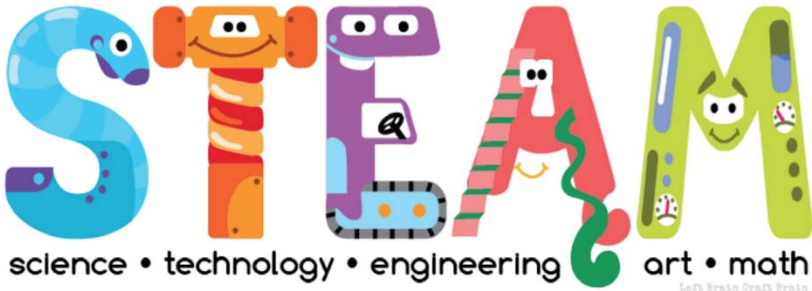






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What is STEAM Education?



science • technology • engineering art • math

Left Brain Craft Brain


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Methods (cont'd)


Procedures:

STEAM PD Intervention had 2 parts:

1. Teacher preview meeting
2. Activity Day






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Activity Day

- Addressed several SC standards in content areas of math, literacy, social studies, & science
- 2 whole group activities & 4 small group activities (rotating 30 mins per center)





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Data & Analysis

- Conducted 1 hour **focus group with teachers** after STEAM workshop to ask about their experiences
- Questions targeted **successful/unsuccessful aspects** of STEAM workshop
- Transcripts were **analyzed** using a transcendental phenomenological approach (Moustakas, 1994)






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Findings: *PD Curriculum*

Supports	Barriers
<ul style="list-style-type: none"> • Age appropriate differentiation <ul style="list-style-type: none"> – Time • Student performance • Effective scaffolding <ul style="list-style-type: none"> – Teacher & Students 	<ul style="list-style-type: none"> • Unfamiliar with engineering & inquiry aspect • Connection to standards • Lack of optional enrichment pieces

“I thought it **helped all learning styles**, so those kids that aren’t able to sit still for a long period of time, they were able to **stay engaged**.”



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Findings: *PD Format*

<p>Supports</p> <ul style="list-style-type: none"> • Active learning • Contextualized nature • Pre-planned approach 	<p>Barriers of past PD</p> <ul style="list-style-type: none"> • Passive • Unrelated to practice • Ineffective use of time
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“...it was so much [more] helpful to get in there and do it with our class. We’d much rather be **active participants** just like the children than sit there and be talked to.”

“...for our children it was **very familiar and very easy** for them to follow that flow...”






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Findings: *PD Implementation*


<p>Supports</p> <ul style="list-style-type: none"> • Deeper understanding <ul style="list-style-type: none"> – Students & Teacher • Collaboration <ul style="list-style-type: none"> – Community – Materials – Teachers 	<p>Barriers</p> <ul style="list-style-type: none"> • Resources <ul style="list-style-type: none"> – People – Materials • Home to school connection • Structure <ul style="list-style-type: none"> – Lack of time (class, planning, home)
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“...when I think of **inquiry** I think that’s the **biggest piece that holds me back** is when they’re seeking information, what kind of adult help or tool help do you have to guide them in that search?”

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Traditional PD	Future PD


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Traditional PD	Future PD
Passive learning	


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Traditional PD	Future PD
Passive learning	Active learning


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Traditional PD	Future PD
Passive learning	Active learning
Limited follow-up after PD completion	

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Traditional PD	Future PD
Passive learning	Active learning
Limited follow-up after PD completion	Increased follow-up after PD workshops



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Traditional PD	Future PD
Passive learning	Active learning
Limited follow-up after PD completion	Increased follow-up after PD workshops
Lack of time/resources to implement learned strategies	



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Traditional PD	Future PD
Passive learning	Active learning
Limited follow-up after PD completion	Increased follow-up after PD workshops
Lack of time/resources to implement learned strategies	Support from schools/teachers via resources & time



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Traditional PD	Future PD
Passive learning	Active learning
Limited follow-up after PD completion	Increased follow-up after PD workshops
Lack of time/resources to implement learned strategies	Support from schools/teachers via resources & time
Content is unconnected, vague, or irrelevant to classroom context & practice	

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Traditional PD	Future PD
Passive learning	Active learning
Limited follow-up after PD completion	Increased follow-up after PD workshops
Lack of time/resources to implement learned strategies	Support from schools/teachers via resources & time
Content is unconnected, vague, or irrelevant to classroom context & practice	Content directly connected to practice & classroom

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Conclusions

- Gained **teacher buy-in** regarding STEAM teaching
- Provided lesson plans, materials, and an **active learning experience** in teachers personal teaching context
- Applied many **PD best practices** in the same time of a traditional "sit-and-get" PD workshop

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Thank you!

CLAD Lab: <https://www.clemson.edu/education/clad/>

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References

- Birman, B. F., Desimone, L., Porter, A. C., & Garet, M. S. (2000). Designing professional development that works. *Educational Leadership*, 57(8), 28-33.
- Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: SAGE Publications.
- Sheridan, S. M., Edwards, C. P., Marvin, C. A., & Knoche, L. L. (2009). Professional development in early childhood programs: Process issues and research needs. *Early Education and Development*, 20(3), 377-401.
- Zaslow, M., Tout, K., Halle, T., Whittaker, J. V., & Lavelle, B. Child Trends. (2010). *Toward the identification of features of effective professional development for early childhood educators: Literature review*. Washington, DC: US Department of Education.



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