Teacher Learning Hub

Annual Report

18/19

Contents

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Executive Summary

The following is a brief summary of the information found in the Teacher Learning Hub Annual Report for 2018-2019.

- Registered Users: 12,467, a 40.9% increase over the previous year

- Course Completions: 7,282, a 20.6% increase over the previous year

- Renewal Units Issued: 25,493, a 12.8% increase over the previous year

- Course Types:
    - 89 self-paced courses were offered throughout the year. These accounted for 69% of the Hub's courses and 92% of completions.
    - 31 facilitated courses were offered for a total of 48 sessions. These accounted for 24% of the Hub's courses and 7.5% of completions.
    - Nine group courses were offered throughout the year. These accounted for 7% of the Hub's courses and 0.5% of completions.

- Estimated Costs (for a 1-2 hour self-paced course):
    - Initial course creation: $665
    - Ongoing course maintenance and support: $730 annually

Montana
Office of Public Instruction
opi.mt.gov **Elsie Arntzen, Superintendent**

The Hub Story

Montana's teachers are dedicated professionals who strive to improve their practice in service to their students. Professional development is an essential part of the ongoing professional work that educators engage in to maintain licensure and keep their skills up-to-date. Montana's geography, weather, isolation, and the expense of professional development have been a barrier to teachers who want to increase their effectiveness in the classroom. This annual report of the Teacher Learning Hub (Hub) activity for 2018-19 is our way of demonstrating how the Office of Public Instruction (OPI) is leveraging its resources to eliminate access barriers for our education community.

Superintendent Arntzen's mission is "Putting Montana Students First." The Hub is a critical tool for professional development in each of the four initiatives of that mission

HISTORY: In July 2013, Montana was awarded an American Federation of Teachers (AFT) Innovation Grant to create the Montana Digital Professional Learning Network (MDPLN). MEA-MFT (now MFPE) and the Montana Digital Academy (MTDA) partnered with the OPI to design a professional development delivery vehicle with the primary goal of addressing the challenges of distance, time, access, and equity for Montana educators. At the conclusion of the AFT Innovation grant in August 2015, the MDPLN partners decided to transition the program to OPI to ensure continued success and sustainability. In November 2015, MDPLN was transformed into the OPI Teacher Learning Hub. In its home at the OPI, the Hub Team is committed to offering quality online learning that is engaging, relevant, accessible, and free of cost.

PROGRAM OVERVIEW: The Hub is administered and staffed in the OPI Content Standards and Instruction division with support from: Montana's GEAR UP program at the Office of the Commissioner of Higher Education; OPI Educational Opportunity and Equity division; OPI Special Education Division; and, the Montana educators who create and facilitate courses. This support allows for the diversification of course offerings, including three types of courses, and an expanding catalog of more than 100 courses. With users increasing to nearly 9,000 in 2017, the Hub added a second full-time specialist in January 2018, with support from the Montana Comprehensive Literacy Program grant.

While there are many exciting changes in store for the 2019-2020 fiscal year, the Hub's purpose of providing equitable, accessible professional learning for educators throughout Montana remains at the forefront. This Annual Report for the period July 2018 through June 2019 is evidence of the growth, quality, and value of the Teacher Learning Hub to Montana's education community.

This report was prepared by Jessica Bryant (Learning Hub Coordinator) with contributions by Allen Way (Learning Hub Project Specialist), Marjorie O'Rourke (Administrative Specialist), Carli Cockrell (Professional Learning Coordinator) and Colet Bartow (Director of Content Standards and Instruction).

"Enlightening course! I learned strategies that I can apply to my classroom right away and it enriched my thinking about how I can better serve my students."

-But What About Fact Fluency

"I have attended workshops before on ACES, but this is the first one that gave me some concrete interventions that I can do w/kids who are or have experienced trauma. It was very helpful!"

- Overcoming ACEs in MT Schools

"Very informative course! Peers and Instructor were supportive and provided intelligent and thoughtful posts and feedback. I truly enjoyed taking part. Thank you for offering this course."

- It's Your First Year Teaching, Now What?!

"The instructor did an EXCELLENT job! She was very prompt with responses and grading, and gave tons of great feedback! I was so impressed with her teaching and really learned a lot. It got me excited about teaching math and implementing new strategies, and I've already put lots of what I learned to work in the classroom."

- Number Systems and Operations (K-3)

Course Designers and Facilitators

The educators, non-profits and other state agencies shown on this map are evidence of our commitment to engage with Montana's best content experts.
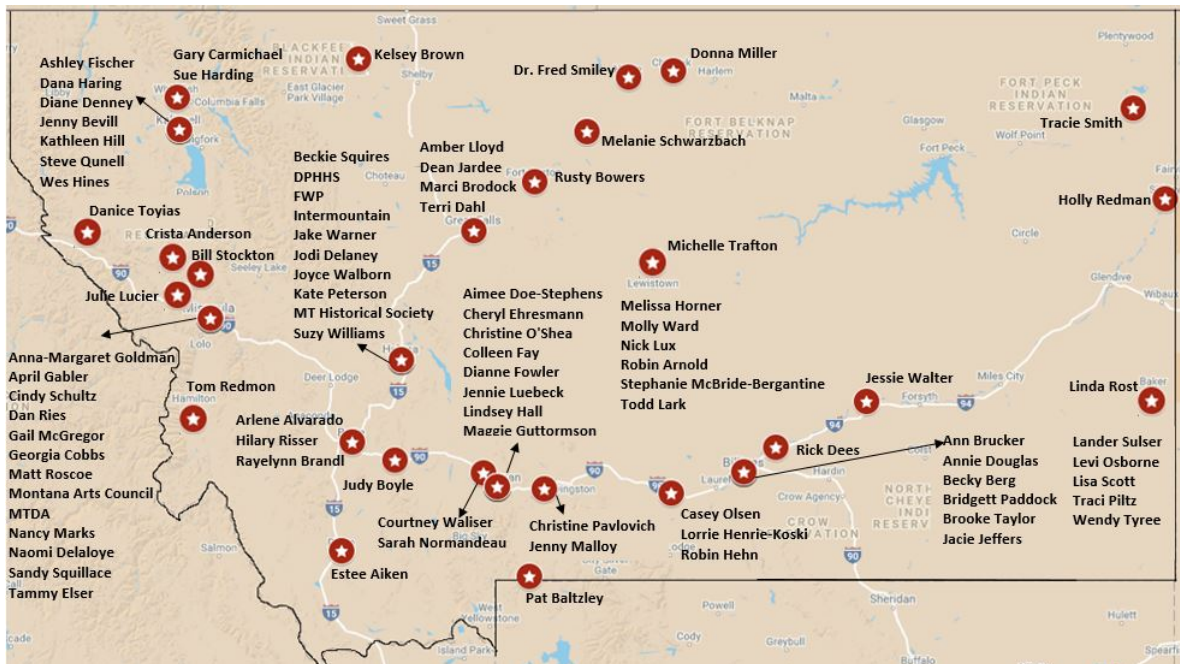
Savings for Schools 18/19

The Hub has a goal of providing equity of access to high-quality professional development. The Hub prides itself on being free to teachers across the state, creating tremendous savings to schools.

On average, schools spend **$227** per teacher to travel to a 6-hour workshop. This includes substitute costs, mileage, and per diem.

For a weekend workshop, where a substitute is not needed, the cost is **$137** per teacher.

A school will spend about **$117** per teacher to pay a presenter to travel and provide a workshop at the school.

Using the Teacher Learning Hub...

- Teachers spent **25,493 hours** earning Renewal Units in 2018-2019.

- This is equal to **4,248** 6-hour PD sessions.

- **The cost to schools and teachers was $0.**

Estimated Savings to Schools and Teachers = $680,758

Registered Users

The Hub has 12,467 total registered users, an increase of 40.9% from the 2017-2018 total of 8,848.

New Users by Month and Year

Legend: ■ 16/17 ■ 17/18 ■ 18/19
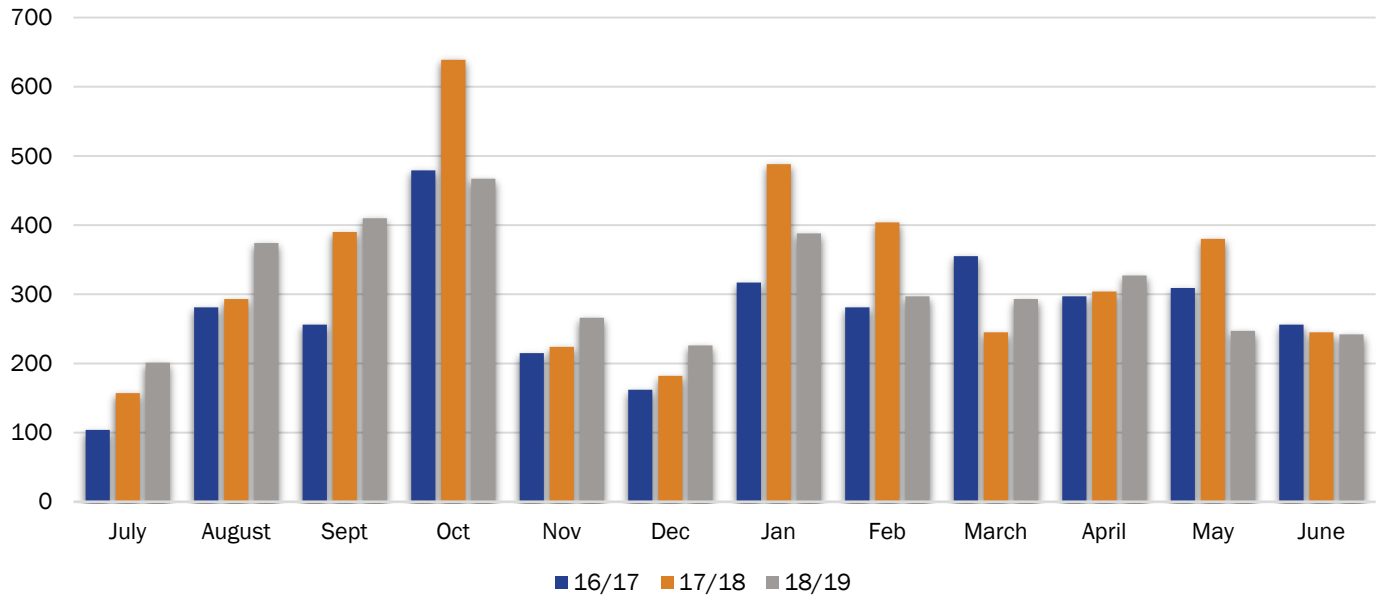
Active Users

An active user is defined as a user who is enrolled in an open course. A user is automatically unenrolled from a course after 120 days of inactivity.

Average Number of Active Users by Month

Legend: 16/17 17/18 18/19

Maps of Registered Users

Montana Users

Of the Hub's 12,467 registered users, 11,050 are from Montana, 615 are from other U.S. States, and 41 are from other countries. Location data was incomplete or not available for 761 users. The map below is color-coded to show the number of users in Montana by city.
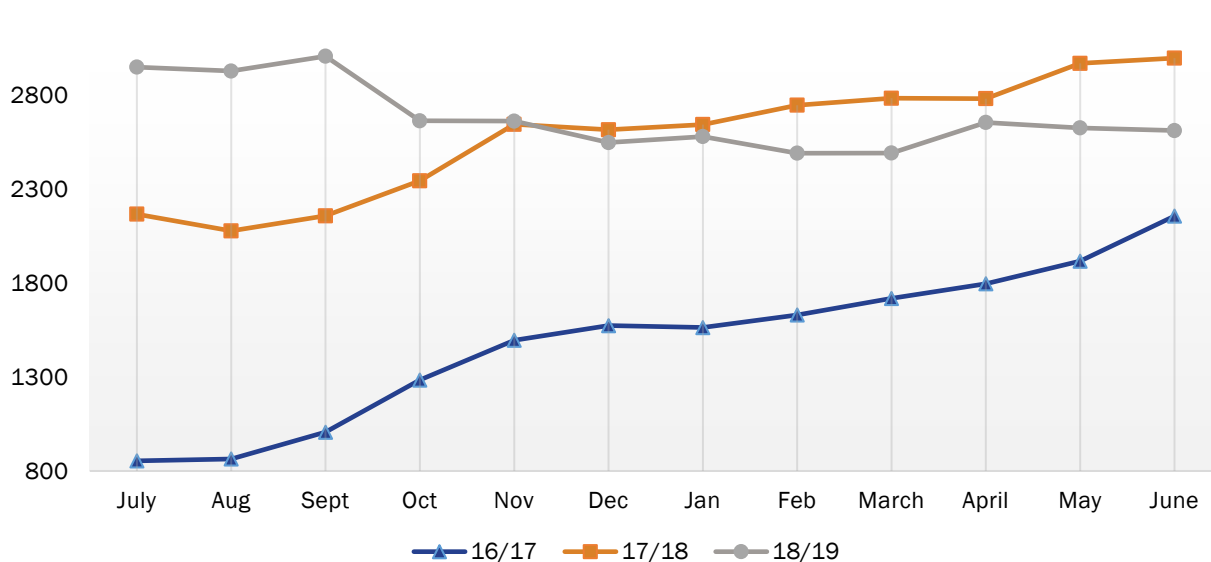

Legend:
- ⬤ 1-49 Users
- ◆ 50-99 Users
- ⬛ 100-199 Users
- 📍 200-499 Users
- ★ 500-999 Users
- ✪ 1000+ Users
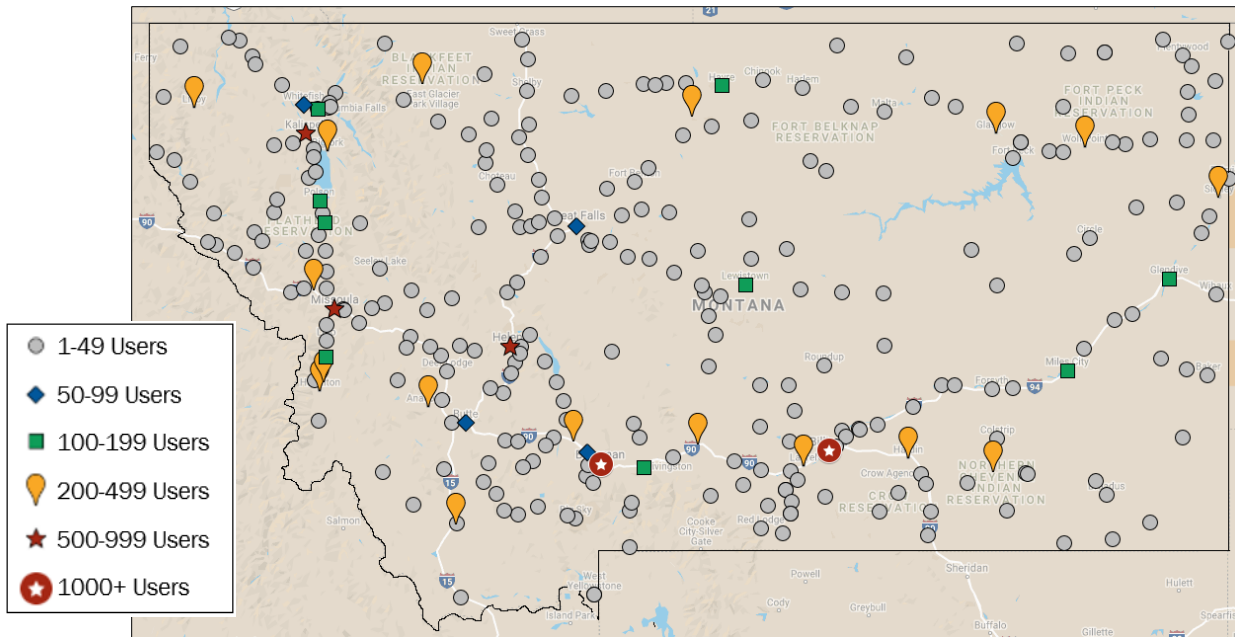
Users From Other States

Of the 615 users from other states, 373 are either currently taking or have completed a course. This subset of users represents 44 states. The map below represents all 615 users; each marker may represent more than one user.

Legend:
- 📍 User with no course completions
- 📍 User either working on or has completed a course

Hub Course Types

Self-paced

These courses do not have a start or end date but are continuously open. Participants can complete at their own pace and schedule. Active learning is a core principle.

In 2018-19, the Hub offered 89 self-paced courses. These accounted for 69% of the Hub's courses and 92% of completions.

27 new courses opened and 12 were retired or closed for revisions.

Facilitated

These courses are typically 3-5 weeks. Most courses do not have specific meeting times for each week; instead, there are deadlines for each activity or assignment. A facilitator will be online to guide participants and provide feedback. These courses are capped between 25 and 30 participants and run 1-3 times per year.

In 2018-19, the Hub offered 31 facilitated courses for a total of 48 sessions. These accounted for 24% of the Hub's courses and 7.5% of completions.

Two new courses opened and one was retired.

Group

Virtually guided group courses blend the convenience of online learning with the power of collaboration. Teachers gather as a group, pull up the course on a projector, and follow along. These courses guide groups through the content using materials (which are printed ahead of time), activities, and discussion prompts.

In 2018-19, the Hub offered nine group courses. These accounted for 7% of the Hub's courses and 0.5% of completions.

No new courses opened and four were retired.

Due to low numbers, group courses are classified with self-paced for the remainder of this report.

"Thank you for this great course! I am excited about all of the information that I have been given about gifted learners. I realized how much I didn't know before, and I am better educated in serving my students now."

- Introduction to Gifted Students

"I really enjoyed this course, especially the fact that I could use what I learned right away with my classes. Thank you!

- Google Suite Advanced

"This was thorough and well spoken. I appreciated the practical 'real life' examples and the entire thing was not theoretical. I feel better equipped for working with students dealing with loss."

- Dealing with Grief and Loss in Adolescents

"Loved the course. Thought it was a great way for all educators to have a look at different types of Digital Portfolios and see what would work best for their classroom. Loved learning from other teachers about how they used their portfolios in their classrooms."

- Student Created Digital Learning Portfolios

Course Completions

The Hub had 7,282 course completions this year, a 20.6% increase over the 2017-2018 total of 6,039.

Course Completions Over Last 3 Years
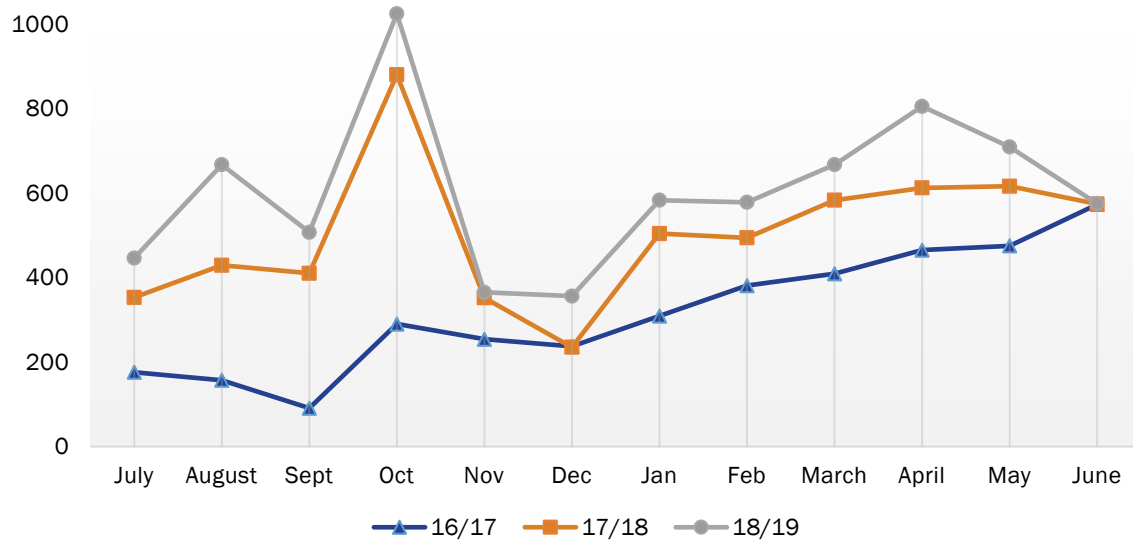
During this fiscal year, the Hub offered 129 courses. This table represents these courses, split by the categories used on the Hub, with number of courses and ordered by percent of total 18/19 completions.

Course Category	Number of Courses	Percent of Total Completions
Mental Health and Behavior	10	17.99%
Indian Education for All	2	15.60%
General School Issues & Administration	8	10.46%
Literacy	21	9.19%
Mathematics	29	9.02%
Technology	10	7.29%
Support Staff	8	6.69%
Science	16	6.61%
Universal Instructional Strategies	6	5.62%
Fine Arts	3	3.19%
Multi-tiered Systems of Support (MTSS)	1	3.02%
Other	9	2.13%
Social Studies	1	1.10%
Health Enhancement	1	0.85%
Special Education	1	0.66%
Early Childhood	1	0.30%
Assessment	1	0.16%
CTE	1	0.12%

Renewal Units

The Hub issued 25,493 renewal units this year, a 12.8% increase over the 2017-2018 total of 22,598 units. The 2016-2017 total was 17,042.

Renewal Units Earned Over Last 3 Years

Year	Facilitated	Self-paced
16/17	8,860	8,182
17/18	7,795	14,803
18/19	7,989	17,504

Legend: ■ Self-paced ■ Facilitated
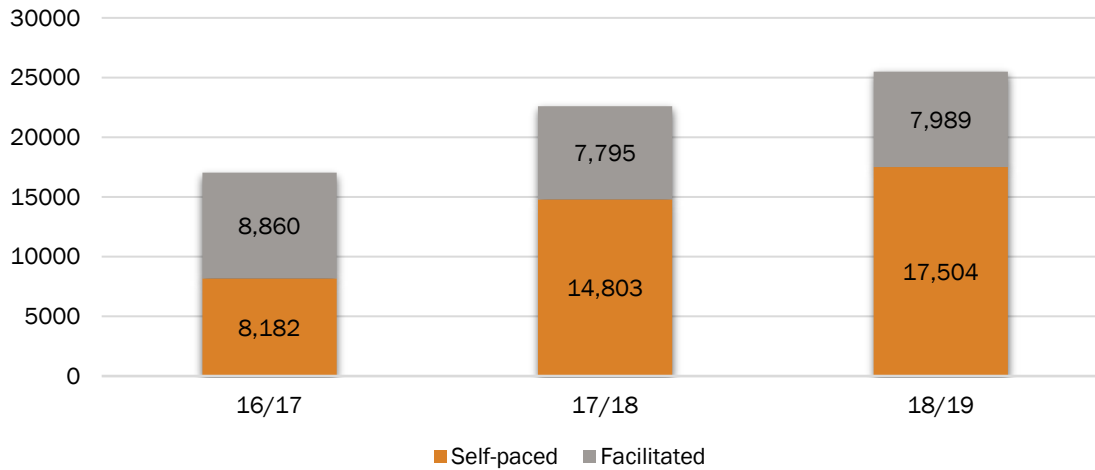
October was the highest month for 2018-2019 at 3,853 renewal units. 2017-2018 also showed an increase in October, but March was the highest month that year at 3,088 renewal units.

Renewal Units by Month and Type

Month	Facilitated	Self-paced
July	308	1,213
August	370	1,891
Sept	0	1,281
Oct	1,303	2,550
Nov	270	888
Dec	493	860
Jan	585	1,396
Feb	1,350	1,173
March	921	1,464
April	1,134	1,773
May	955	1,640
June	300	1,375

Legend: ■ Self-paced ■ Facilitated
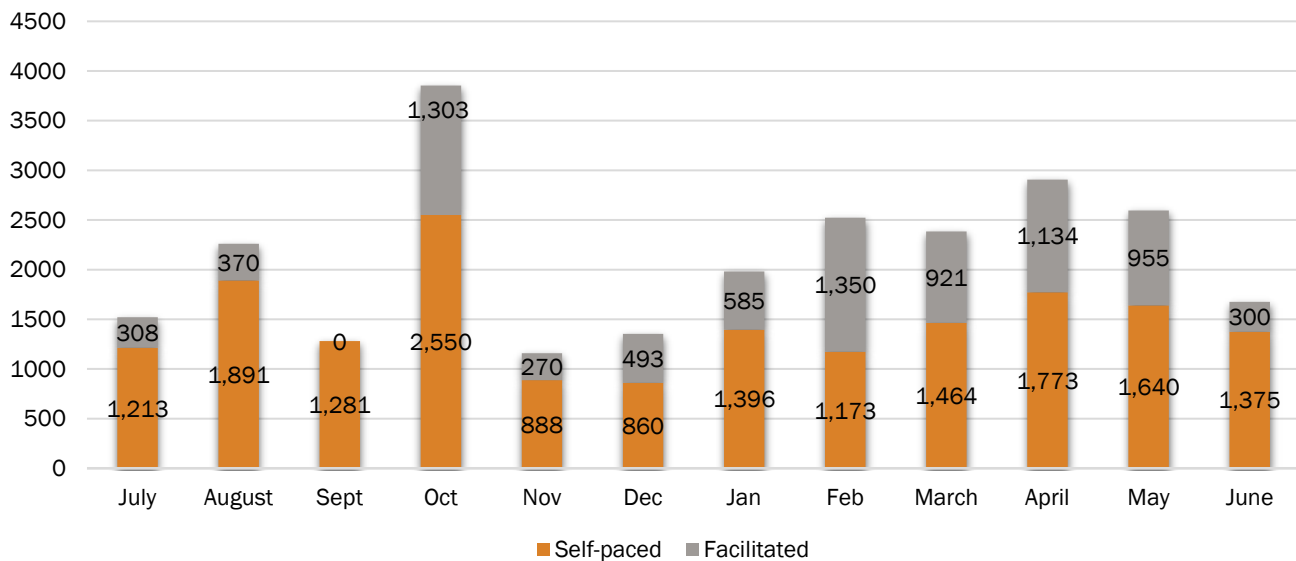
Evaluation Data

Every course ends with a standard evaluation. Participants are required to complete the evaluation before they can access their renewal unit certificate. The first evaluation question asks participants if they currently work in a K-12 Montana School. This year, 62.4% of participants marked yes and 37.6% marked no. The next two sections show data for participants from each group.

Participants Working in a K-12 Montana School

Educators from 584 Montana schools completed one or more Hub courses this year. This figure includes 64 of the 91 schools located on Ind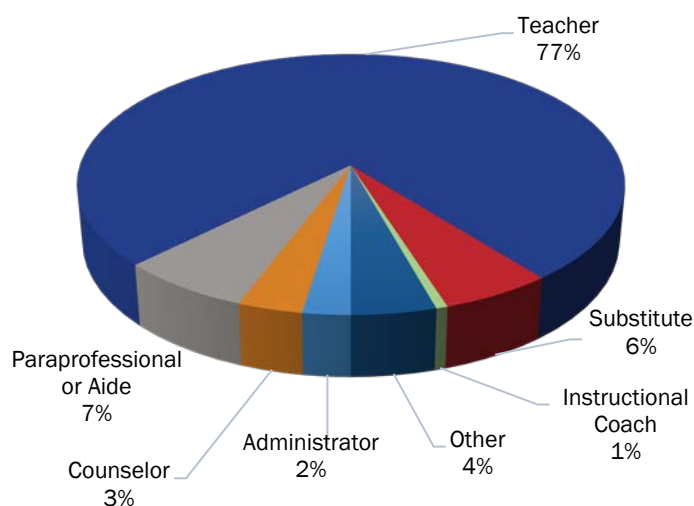ian reservations. In 2017-2018, the total was 581 schools. The following charts show a breakdown of these schools and their educators by four different methods of categorization.

Breakdown by Role

- Teacher 77%
- Substitute 6%
- Instructional Coach 1%
- Other 4%
- Administrator 2%
- Counselor 3%
- Paraprofessional or Aide 7%

Breakdown by Grade Level

- High 27%
- Elementary 55%
- Middle 18%
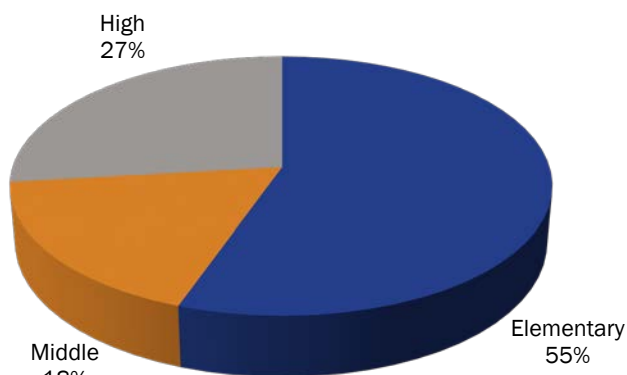
Breakdown by MASS Region

- Southeast 7%
- Northwest 11%
- Northeast 10%
- Western 14%
- South Central 16%
- Central 3%
- Hi-Line 7%
- North Central 12%
- Four Rivers 20%
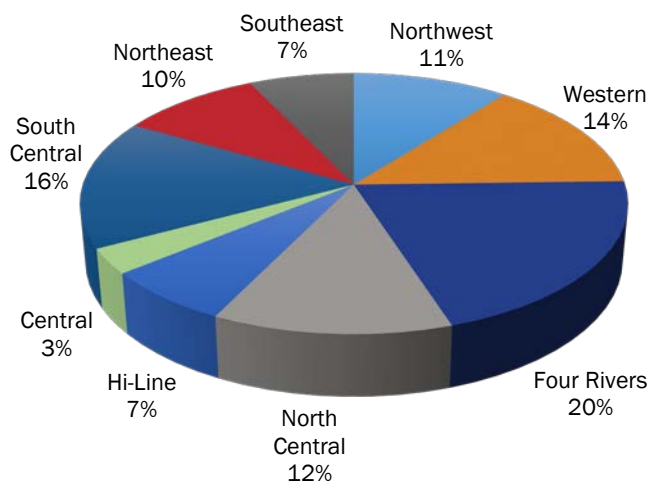
Breakdown by MHSA Classifcation

- A 17%
- B 20%
- C 32%
- AA 23%
- Private, Independent, or Other 8%
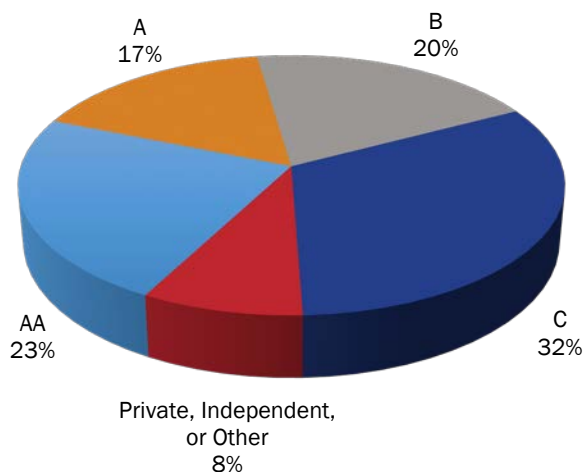
Participants Not Working in a K-12 Montana School

These participants accounted for 37.6% of all completions. Due to the high percentage of "other," we have added two more options for the 2019-2020 evaluation.

Which Option Best Describes Your Situation?

- Retired 6%
- Looking for a teaching job in MT 20%
- Other 26%
- Out of state 12%
- Taking a break from teaching 17%
- Teach at a college or university 2%
- Homeschool teacher 1%
- Pre-service teacher 11%
- Early childhood 4%
- Adult Ed 1%
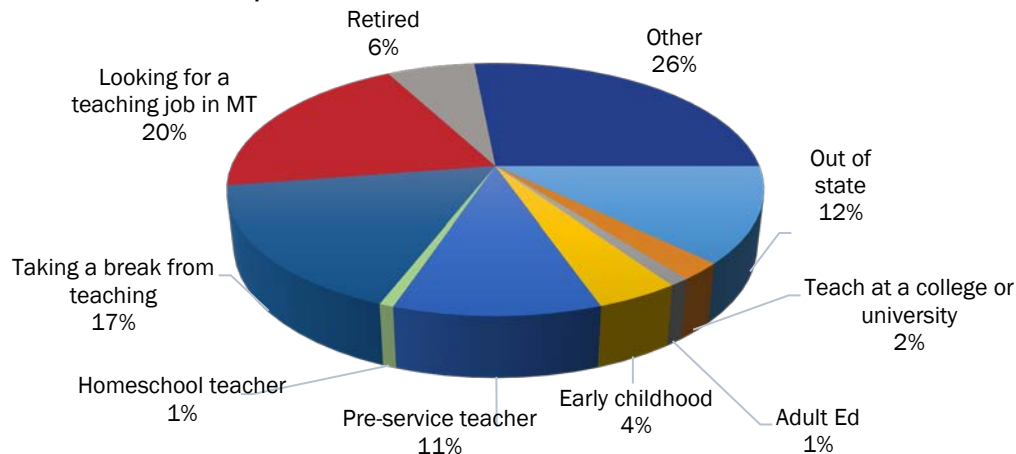
Additional Evaluation Questions

The following data represents questions answered on the evaluation by all participants.

What is your primary reason for taking this course?

- Earn renewal units 52%
- Learn more about the course topic 19%
- Required for initial Montana Licensure 12%
- Required by my school 11%
- Other 6%
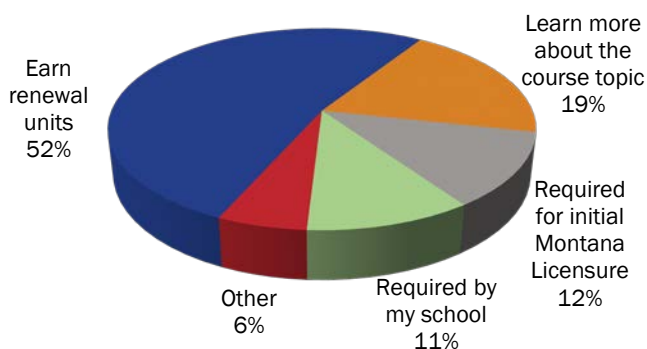
How did you hear about this course?

- Searching on the Hub 49%
- A friend or co-worker 8%
- My administrator 13%
- OPI newsletter 2%
- OPI website 14%
- Learning Opportunities Portal 3%
- At a workshop 1%
- Other 10%
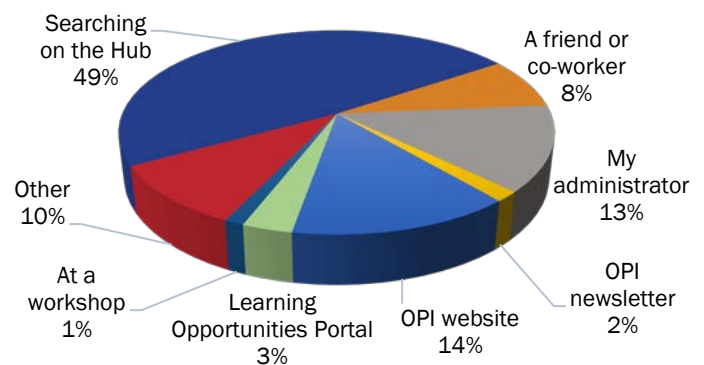
Question (Rated on a scale of 1-4, 4 being the highest)	Site-Wide Average
Overall, how satisfied are you with this course?	3.73
Rate the content of this course.	3.67
How engaged where you during this course?	3.44
How much of what you learned will you apply to your teaching?	3.39

Self-Paced Courses

Most Completions

See Appendix A for a listing of data for all self-paced courses.

Course	Course Length (RUs)	Completions
An Introduction to IEFA In Montana	2	1,088
Welcome to Our School! An Introduction for Substitute/Guest Teachers	3	394
Overcoming ACEs in MT Schools: Childhood Trauma and Its Impact on Learning	4	391
MTSS Overview	1	220
Navigating the Other Side of Teaching	6	200

> *"This is undoubtedly my favorite module in the Teacher Hub so far and has completely reignited my passion for teaching reading. I thought perhaps my "day" had passed; I taught only five years after finally obtaining my degree, and left the profession completely deflated. Now, I want to try to reenter the field and find the grade level which I hoped for when I first started teaching."*
>
> - Reading Between the Lines: Close Reading Strategies

Highest Ratings

This table shows the five highest participant-rated courses across all four categories. To qualify, courses must have at least 20 completions. Participants rate each category on a scale of 1-4, with four being the highest.

Course	Overall Satisfaction	Content Rating	Engagement Level	Application Rating
But What About Fact Fluency	3.90	3.84	3.74	3.68
Growing Up WILD! Exploring Nature with Young Children	3.77	3.73	3.86	3.77
Addition and Subtraction Strategies	3.91	3.91	3.76	3.54
Dealing with Grief and Loss in Adolescents	3.87	3.86	3.68	3.63
At-Risk: Mental Health & Suicide Prevention Role-Play Simulations (Middle School)	3.89	3.81	3.70	3.63

> *"This course is very revitalizing to the all the diverse cultures, spanning across our grand Montana state. This course will open unknown minds on what native cultures really mean, especially inside a classroom setting! Very proud of this course, good job!"*
>
> - An Introduction to IEFA in Montana

Facilitated Courses

Most Completions

See Appendix B for a listing of data for all facilitated courses.

Course	Number of Sessions	Completions
Student Created Digital Learning Portfolios	3	67
Google Suite Advanced	3	60
Paraprofessionals Achieving Standards Successfully (PASS)	2	38
STREAM: Number Systems and Operations (K-3)	2	32
It's Your First Year Teaching, Now What?!	3	25

> *"Communication in this module was great! Our feedback from the instructor and other class members was meaningful and helpful."*
>
> - STREAM: Number Systems & Operations (4-7)

Highest Ratings

This table shows the five highest participant-rated courses across all four categories. To qualify, courses must have at least 10 completions. Participants rate each category on a scale of 1-4, with four being the highest.

Course	Overall Satisfaction	Content Rating	Engagement Level	Application Rating
Student Created Digital Learning Portfolios	3.97	3.94	3.81	3.79
STREAM: Geometric Thinking (K-3)	4.00	3.91	3.77	3.68
Google Suite Advanced	3.93	3.88	3.63	3.40
STREAM: Measurement (K-3)	3.83	3.72	3.67	3.61
STREAM: Geometric Thinking (4-7)	3.83	3.83	3.75	3.42

> *"I really took a lot from this class. I really enjoyed the material that we covered and will use this in the future. I find myself being more organized with my science curriculum this year and look forward to teaching the kids about the CCCs. I even caught myself already referring to things in a more scientific way and feel that my students will benefit from this course as well. Thank you for creating the class."*
>
> - Crosscutting Concepts: Making Learning Real Through the Big Picture

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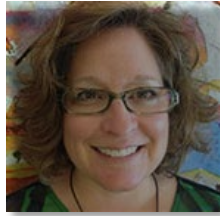
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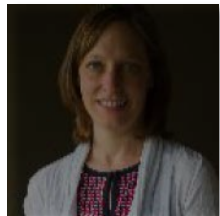
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Appendix A

This table shows the data for all self-paced and group courses during the 2018-2019 fiscal year. The table is sorted by number of completions. Any courses closed are italicized and noted with the close date. Group courses are marked with an asterisk (*).

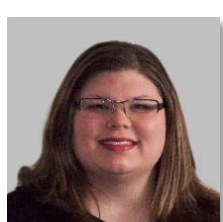| Course	Renewal Units	Date Opened	Overall satisfaction	Content Rating	Engagement Level	Application Rating	Completions
An Introduction to IEFA In Montana	2	2017	3.72	3.65	3.41	3.29	1,088
Welcome to Our School! An Introduction for Substitute/Guest Teachers	3	2016	3.67	3.57	3.33	3.44	394
Overcoming ACEs in MT Schools: Childhood Trauma and Its Impact on Learning	4	2018	3.78	3.75	3.56	3.57	391
MTSS Overview	1	2017	3.60	3.49	3.14	3.46	220
Navigating the Other Side of Teaching	6	2017	3.69	3.61	3.33	3.40	200
Dealing with Grief and Loss in Adolescents	2	2016	3.87	3.86	3.68	3.63	192
Overview of Youth Suicide	2	2018	3.72	3.66	3.46	3.44	180
Montana's New Science Standards 101	2	2017	3.53	3.45	2.90	3.19	155
But What About Fact Fluency	2	2018	3.90	3.84	3.74	3.68	155
Montana's New Science Standards: An Introduction (closed 5/1/19)	1	2016	3.50	3.40	2.90	3.20	128
Information Sharing: HIPAA and FERPA for Schools	2	2018	3.52	3.48	3.11	3.23	122
Allergies and Anaphylaxis Training for School Staff	1	9/11/2018	3.78	3.79	3.45	3.60	118
At-Risk: Mental Health & Suicide Prevention Simulations (Elem)	1	2017	3.83	3.74	3.63	3.61	110
Introduction to Gifted Students	4	2017	3.83	3.75	3.51	3.34	109
Creating Asthma Friendly Schools	1	2017	3.83	3.76	3.49	3.56	107
More Than Making the Grade: Intro to Standards-Based Grading	2	2016	3.50	3.44	3.29	3.11	106
Arts Integration 101	1	2018	3.76	3.69	3.48	3.28	106
Warning Signs: Child Sexual Abuse	2	2/13/2019	3.80	3.75	3.66	3.59	101
Digital Citizenship	2	2017	3.80	3.70	3.46	3.44	96
Current Tobacco Trends & Impacts on MT Youth	1	11/7/2018	3.87	3.84	3.72	3.37	95
Google Suite for Beginners	6	2018	3.86	3.83	3.60	3.51	89
Suicide Prevention for Schools Part 1: Strategies	2	2018	3.70	3.69	3.41	3.45	86
Montana Historical Society Educator Resources	1	2016	3.69	3.56	3.25	3.28	80
Digital Accessibility Fundamentals	1	2018	3.70	3.78	3.48	3.40	77

Course	Renewal Units	Date Opened	Overall satisfaction	Content Rating	Engagement Level	Application Rating	Completions
Using Assessment to Enhance Writing	6	2018	3.84	3.80	3.57	3.50	76
Curriculum Integration: What It Is and What It Isn't	1	2018	3.61	3.49	3.35	3.33	75
Montana Content Standards 101	1	1/9/2019	3.65	3.53	3.12	3.18	74
Write From the Start: K-2 Writing Strategies (Part 1)	6	2016	3.86	3.83	3.59	3.32	72
Gifted & Talented: Depth & Complexity	1	2018	3.53	3.46	3.24	3.11	72
Step In Speak Up! Supporting LGBTQ Youth	1	10/2/2018	3.79	3.75	3.69	3.56	71
At-Risk: Mental Health & Suicide Prevention Simulations (HS)	1	2017	3.73	3.73	3.66	3.47	70
Addition and Subtraction Strategies	5	10/3/2018	3.91	3.91	3.76	3.54	70
Media Arts 101	2	2017	3.78	3.75	3.54	3.26	69
Taking Reading Instruction to the Next Level: Strategies for Success	6	8/22/2018	3.65	3.71	3.56	3.36	66
At-Risk: Mental Health & Suicide Prevention Simulations (MS)	1	2017	3.89	3.81	3.70	3.63	63
Intro to Foundational Skills	1	11/15/2018	3.74	3.65	3.37	3.48	63
Montana's New Health Enhancement Standards: An Introduction (closed 4/1/19)	1	2016	3.71	3.53	3.15	3.10	62
UDL: Digital Tools and Digital Learning	2	2017	3.64	3.64	3.38	3.43	58
Problem Solving: Bring Your Classroom Alive!	3	2018	3.74	3.67	3.53	3.42	57
Smithsonian American Art Museum Webinar Series	3	2018	3.65	3.54	3.35	3.32	57
Integrating Journalism in Your Classroom	1	2017	3.81	3.71	3.54	3.44	52
Using Writing to Teach Critical Thinking	1	2017	3.63	3.59	3.35	3.37	49
Practical Strategies for Using Technology to Assist Notetaking	1	12/21/2018	3.77	3.75	3.54	3.21	48
How to Use The Framework: A Practical Guide for Implementing IEFA	4	3/1/2019	3.71	3.71	3.60	3.52	48
Suicide Prevention for Schools Part 2: Protocols	2	2018	3.76	3.76	3.48	3.48	46
Tech-ify Your Classroom! The Basics of K-5 Technology Integration	4	2017	3.71	3.64	3.33	3.18	45
Exploring Inquiry With NASA	4	2017	3.80	3.77	3.55	2.95	44
Reading Between the Lines: Close Reading Strategies for Secondary Schools	3	2017	3.78	3.76	3.61	3.59	43
K-6 INFORMative Math Instruction: Who Knows? Who Doesn't? Now What? (closed 12/31/18)	8	2016	3.61	3.66	3.22	3.10	41

Course	Renewal Units	Date Opened	Overall satisfaction	Content Rating	Engagement Level	Application Rating	Completions
Confidence in Content: Teaching Linear Equations	6	2017	3.73	3.78	3.46	3.39	41
Using the Montana Early Warning System (closed 11/2/18)	4	2017	3.75	3.55	3.30	3.13	40
Tech Tools You Can Use Tomorrow	4	2017	3.72	3.59	3.26	3.21	39
Writing to Learn: 3-6 Writing Strategies (Part 1)	6	2016	3.81	3.84	3.70	3.38	37
"Backpack Science" K-6 Inquiry Activities: Mapping	2	2017	3.67	3.58	3.47	3.25	36
A Bit About Braille	1	2/15/2019	3.86	3.78	3.67	3.06	36
*A School's Guide to Creating a School-Wide Reading and Writing Protocol	3	2017	3.60	3.17	3.57	2.77	35
ELP 101	5	2018	3.8	3.66	3.40	3.26	35
Mathematical Practices	3	9/14/2018	3.71	3.68	3.50	3.35	34
Integrating Arts to Reduce Student Tobacco Use	1	11/1/2018	3.89	3.74	3.56	3.30	27
Write From the Start: K-2 Writing Strategies (Part 2)	6	2016	3.84	3.80	3.44	3.24	25
Montana's New Science Standards 201: Three-dimensional Learning	3	2018	3.84	3.72	3.60	3.60	25
Effective Classroom Practices	4	3/29/2019	3.71	3.79	3.50	3.25	24
Montana's Hidden Treasures (closed 8/31/18)	2	2015	3.73	3.77	3.55	2.95	22
Growing Up WILD! Exploring Nature with Young Children	10	2017	3.77	3.73	3.86	3.77	22
Foundational Skills: Print Concepts	1	11/16/2018	3.86	3.77	3.59	3.64	22
Writing Across the Disciplines in Grades 5-12	6	2017	3.83	3.78	3.56	3.28	18
Intro to Course Design 2.0	9	11/2/2018	3.83	3.83	3.67	3.72	18
MTDA Credit Recovery Orientation: Local Support	2	2016	3.59	3.47	3.24	3.59	17
Montana's New Science Standards 401: Project-based Learning	4	8/16/2018	3.76	3.71	3.71	3.29	17
Montana's New Science Standards 301: Phenomena-based Learning	2	8/1/2018	3.75	3.63	3.50	3.38	16
CDTP Refresher	1	1/10/2019	3.80	3.73	3.73	3.87	15
Ensuring Equity for All In Mathematics (closed 12/31/18)	10	2016	3.71	3.79	3.50	3.14	14
Supporting Readers with Informational Text	5	11/1/2018	3.43	3.57	3.43	3.21	14
Foundational Skills: Phonological Awareness	2	11/16/2018	3.92	3.92	3.77	3.62	13
Implementing Smarter Balanced Interim Assessments	7	2018	3.67	3.67	3.50	3.50	12
Writing to Learn: 3-6 Writing Strategies (Part 2)	6	2016	3.80	3.70	3.60	3.40	10

Course	Renewal Units	Date Opened	Overall satisfaction	Content Rating	Engagement Level	Application Rating	Completions
Foundational Skills: Phonics and Word Recognition	3	11/26/2018	3.90	4.00	3.90	3.90	10
MTDA Credit Recovery Orientation: Site Facilitator	2	2016	3.63	3.75	3.25	3.50	8
Introduction to Course Design (closed 11/2/18)	6	2017	3.38	3.63	3.25	3.13	8
How to Integrate Media Arts into Your Classroom	4	12/11/2018	3.88	3.88	3.88	3.63	8
Foundational Skills: Fluency	2	11/26/2018	3.86	3.86	3.86	3.86	7
Backpack Science K-6 Inquiry Activities: Landscape (closed 12/31/18)	2	2017	3.67	3.50	3.33	3.33	6
GEMS: Using Montana Data for Data Driven Decision Making	3	2/26/2019	3.33	3.33	2.83	3.00	6
Science as an Anchor for Literacy in Technical Texts	3	2018	3.80	3.80	4.00	3.8	5
Gray Wolves in the Northern Rocky Mountains: A Conservation Puzzle (closed 8/31/18)	5	2017	3.25	3.50	3.25	2.75	4
Science Standards for Principals: A 10,000' View (closed 2/14/19)	3	2018	3.67	3.67	3.33	2.67	3
Watershed Education 3-5: Place-based Education	4	12/7/2018	3.67	3.67	3.67	3.33	3
Interactive Computer Tasks (closed 9/15/18)	4	2015	3.50	4.00	4.00	3.50	2
GeoGebra (closed 8/31/18)	5	2016	3.00	3.50	2.50	3.00	2
Montana DRIVE Instructors Review	4	2017	4.00	4.00	3.00	4.00	2
8 Mathematical Practices: Secondary (closed 3/22/19)	3	2016	-	-	-	-	0
Six Steps to Developing a School Emergency Operations Plan (closed 10/24/18)	6	2017	-	-	-	-	0
8 Mathematical Practices: Elementary (closed 3/22/19)	3	2017	-	-	-	-	0
*Problem Solving: Bring Your Classroom Alive!	3	2017	-	-	-	-	0
*Key Words Can Be Misleading	1	2017	-	-	-	-	0
*Growth Mindset	3	2017	-	-	-	-	0
*Arts Integration	3	2018	-	-	-	-	0
Introduction to Disciplinary Literacy & The Standards	3	6/25/2019	-	-	-	-	0
Integration Across Content Areas Through a Scientific Lens (closed 1/11/19)	3	2018	-	-	-	-	0

Appendix B

This table shows the data from all facilitated courses that ran during the 2018-2019 fiscal year. The table is sorted by number of completions.

Course	Run Dates	Renewal Units	Overall satisfaction	Content Rating	Engagement Level	Application Rating	Completions	Completion Rate
Student Created Digital Portfolios	Jan 2019	15	3.96	3.88	3.69	3.69	26	100%
Google Suite Advanced	Feb 2019	20	3.83	3.83	3.63	3.42	24	96%
STREAM: Geometric Thinking (K-3)	April 2019	15	4.00	3.91	3.77	3.68	22	88%
Student Created Digital Portfolios	Oct 2018	15	4..00	4.00	3.86	3.86	22	85%
STREAM: Algebraic Thinking (K-5)	Feb 2019	15	3.52	3.38	3.24	3.19	21	81%
Google Suite Advanced	May 2019	20	3.95	3.80	3.50	3.35	20	80%
PASS Math	Dec 2018	0	3.55	3.50	3.15	3.30	20	100%
PASS Reading	Oct 2018	0	3.70	3.55	3.15	3.20	20	91%
PASS Reading	March 2019	0	3.80	3.75	3.45	3.35	20	100%
Student Created Digital Portfolios	May 2019	15	3.95	3.95	3.89	3.84	19	83%
PASS Math	April 2019	0	3.50	3.50	3.22	3.22	18	90%
STREAM: Measurement (K-3)	March 2019	15	3.83	3.72	3.67	3.61	18	75%
STREAM: Number Systems & Operations (K-3)	Oct 2018	15	3.44	3.61	3.11	3.39	18	78%
Google Suite Advanced	Oct 2018	20	4.00	4.00	3.75	3.44	16	64%
STREAM: Connecting Length, Area, and Volume (K-5)	May 2019	15	3.81	3.69	3.63	3.50	16	70%
STREAM: Developing Fraction Sense (3-5)	Jan 2019	15	3.79	3.93	3.64	3.21	14	74%
STREAM: Number Systems & Operations (K-3)	Jan 2019	15	3.43	3.43	3.29	3.00	14	82%
STREAM: Fraction Models & Operations (3-5)	June 2019	15	3.46	3.54	3.54	3.15	13	76%
STREAM: Number Systems & Operations (4-7)	Oct 2018	15	3.85	3.85	3.54	3.23	13	65%
Crosscutting Concepts: Making Learning Real Through the Big Picture	Feb 2019	20	3.58	3.67	3.58	3.50	12	86%

Course	Run Dates	Renewal Units	Overall satisfaction	Content Rating	Engagement Level	Application Rating	Completions	Completion Rate
It's Your First Year Teaching, Now What?!	April 2019	12	3.92	3.75	3.50	3.50	12	92%
STREAM: Geometric Thinking (4-7)	April 2019	15	3.83	3.83	3.75	3.42	12	71%
STREAM: Algebraic Thinking (6-7)	Feb 2019	15	3.73	3.55	3.45	3.55	11	100%
Instructional Strategies for Paraeducators	April 2019	20	3.90	3.70	3.50	3.60	10	50%
STREAM: Ratios and Proportions (6-7)	Nov 2018	15	4.00	3.90	3.40	3.30	10	83%
3D Learning in Your Classroom	Feb 2019	24	3.78	3.89	3.67	3.67	9	100%
It's Your First Year Teaching, Now What?!	Oct 2018	12	3.78	3.89	3.44	3.44	9	56%
STREAM: Describing Data (4-7)	March 2019	15	3.67	3.78	3.78	3.44	9	69%
STREAM: You Decide How to Divide (3-5)	Dec 2018	15	4.00	4.00	3.67	3.00	9	64%
Understanding Healthcare: Intro to Teaching Health Science	August 2018	20/30	3.67	3.56	3.44	3.56	9	69%
STREAM: Functions as Objects (HS)	Nov 2018	15	4.00	3.88	3.75	3.63	8	89%
STREAM: Linear Relationships (7-9)	Dec 2018	15	3.50	3.38	3.25	3.25	8	73%
STREAM: Number Systems & Operations (4-7)	Jan 2019	15	3.75	3.75	3.38	3.00	8	89%
Teaching and Assessing English Learners	April 2019	35	3.13	3.00	2.88	2.75	8	100%
Backwards Design and Assessment of 3D Learning	Dec 2018	36/3	3.67	3.50	3.00	3.67	6	75%
3D Learning in Your Classroom	July 2018	24	3.80	3.60	3.60	3.80	5	50%
Crosscutting Concepts: Making Learning Real Through the Big Picture	Oct 2018	20	3.75	3.75	3.75	3.75	4	100%
It's Your First Year Teaching, Now What?!	July 2018	12	3.75	3.00	3.00	3.00	4	36%
STREAM: Algebraic Thinking (K-5)	July 2018	15	3.25	3.00	3.00	3.00	4	67%
STREAM: Functions as Objects (HS)	July 2018	15	3.75	3.75	3.25	3.00	4	100%
STREAM: Making Sense of Modeling (HS)	June 2019	15	4.00	4.00	3.75	3.75	4	80%
STREAM: Statistical Inferences (HS)	March 2019	15	4.00	4.00	-	-	4	67%
Teaching and Assessing English Learners	July 2018	35	3.75	3.75	4.00	3.00	4	100%

Course	Run Dates	Renewal Units	Overall satisfaction	Content Rating	Engagement Level	Application Rating	Completions	Completion Rate
Orientation to Special Education	June 2019	15	4.00	4.00	3.33	3.67	3	60%
STREAM: Transformations & Proofs (HS)	Jan 2019	15	4.00	4.00	3.67	2.67	3	50%
Instructional Teamwork for Paraeducators	May 2019	15	4.00	4.00	3.00	4.00	2	50%
Teaching and Assessing English Learners	Dec 2018	35	3.00	3.50	3.50	3.00	2	50%
3D Learning in Your Classroom	Nov 2018	24	3.00	3.00	3.00	2.00	1	33%