



## PLN 1C: Reading, Writing and Talking with a focus on Science and Math 侧重于科学和数学教学的读写说

Participants investigate the PLN frameworks of The Five Reading, Writing and Talking Processes and The Four Lenses of Learning with a focus on science and math as they apply and adapt these frameworks and course content to their classroom materials and lessons. Participants engage in learning experiences that are rich in problem-solving, critical thinking, and logical reasoning. Educators learn how to engage students in transacting with texts (comprehension in science and math), composing science and math texts (writing), extending content reading and writing, investigating science and math vocabulary, and learning to learn activities that encourage students to meta-cognitively reflect on their own learning. Participants are asked to bring classroom curriculum materials and content texts to the course for practical application of course concepts and strategies. The assignments include professional readings, reflective journals and a final project that includes classroom lessons based on course content and the PLN frameworks.

参与者探索聚焦于科学和数学教学的 PLN 理论框架，包括五个读写说过程和学习四个维度。参与者将会在自己的教材里运用这些概念和框架，进行适当调整以匹配自己课堂教学内容和课程框架。同时，参与者参与体验以解决问题、注重批判性思维以及逻辑分析为导向的讨论学习。参与者也学习如何让学生更积极地参与到理解科学和数学文本、创作科学和数学文本（写作）、拓展基于内容的阅读和写作、探究科学和数学词汇，以及鼓励学生从元认知的角度来思考他们自己的学习的教学活动。参与此课程的教育工作者需要带上自己的教学大纲和课堂中使用的教材，这样会更有效地帮助他们理解和实践这门课所教授的方法和理念。作业包括阅读教材、反思日志，以及包括基于 PLN 框架和课程内容的教案及实施的结业作业。

**The Four Lenses of Learning** identify teaching and learning as:

- Meaning-centered
- Social
- Language-based
- Human

学习的四个维度认为教与学是：

- 以意义为中心的
- 社交的



- 以语言为基础的
- 以人为本的

**The Five Reading Writing Talking Processes and Math Processes** immerse students in reading, writing, talking, and listening across the curriculum:

- Transacting with Texts/Transacting with Problem Solving
- Composing Text/Composing Problems and solutions
- Extending Reading and Writing/Extending with Problem Solving
- Investigating Language/Investigating Mathematics
- Learning to Learn

五个读写说过程使学生浸入跨学科的听说读写：

- 阅读/理解数学和科学文本
- 创作数学和科学文本
- 拓展阅读和写作
- 探究数学和科学词汇
- 学习如何学习

学习的四个维度和五个读写说过程是这门课的基础。参与者阅读相关材料并撰写关于这些框架的落实。参与者需要在他们自己的教学领域里，开发、教授包含听说读写的课程。

来自课程参与者的感言

**原文：from Pennsylvania Institute for Instructional Coaching (A Partnership of the Pennsylvania Department of Education):**

Participants found that the course provided research-based strategies that engage students in literacy across content areas and grade levels commenting “it provided me with skills and strategies that I actually could use in my classroom and want to use.” The course helped math teachers “realize the importance of writing and reflecting by student learners in mathematics.” Participants also found that the course “reinvigorated [their] understanding and appreciation of critical reading and writing in the classroom.”

“As a 25-year math teacher, it was eye opening to have a chance to explore reading and writing for the first time now that I am teaching science. I learned how to increase the frequency of writing in my classes without taking away time from an already busy schedule. I learned how to have my students interact with text to develop deeper understanding.”

Beyond specific strategies, participants experienced shifts in their conceptual understanding of teaching and learning: “It has opened my eyes to the learning process.” They appreciated the opportunity to reflect on their own teaching and learning, one commenting that it “made me take a deeply introspective look at my current teaching practices.”

**翻译：来自宾州教学指导学院（宾州教育部合办机构）**

参与者发现，该课程提供了基于研究的策略，使学生积极参与到跨内容、跨年级的学习中，“它为我提供了我实际可以在课堂上使用并希望使用的教学技能和策略。”该课程帮助数学教师“认识到学生作为学习者在数学课程中参与写作和反思的重要性。”参与者还发现，该课程“重新激发了他们对课堂批判性阅读和写作的理解和欣赏。”

“作为一名25年的数学老师，因为我目前在教授科学，才有这么大开眼界的机会让我第一次有机会探索阅读和写作。我学会了如何在非常紧凑的教学安排下，不浪费时间地提高课堂写作的频率。我学到了如何让学生与文本互动以加深他们的理解。”

除了具体教学策略之外，参与者还经历了对教与学的概念理解的转变：“它让我开始关注学习过程。”他们很高兴有机会反思自己的教与学，这门课“让我对我目前的教学实践进行了深刻的反思。”

**原文：from New Kensington Arnold School District in Pennsylvania:**

- “This has been the most useful series of training that I have participated in.”
- “This was easily the best workshop I’ve ever had as a professional.”
- “Working on our curriculum to incorporate PLN is always beneficial.”
- “It helps with planning my lessons with The Four Lenses in mind.”
- “It helped me to be more engaged as well as my students.”
- “Showed ways to make learning more meaningful.”



**翻译：来自宾州 NKA 学区：**

- “这是我参加过的所有培训中最有用的一系列培训。”
- “这是我成为专业教师以来，上过最棒的工作坊。”
- “把 PLN 结合到我们的课程大纲里面一直都很有帮助。”
- “四个维度在我备课时帮了我很多。”
- “它使我和我的学生们上课时更投入。”
- “展现出如何使学习更具意义的方式。”

**原文：from Susquehanna Township School District and Colonial School District in Pennsylvania:**

- “I enjoyed this course and I have learned a great deal of information.”
- “Thank you for all of the fantastic ideas to increase engagement, effectiveness and student achievement in science and math.”
- “This course has opened my eyes to the benefits and techniques for incorporating writing into my classes.”
- “This course was very effective and engaging! I would recommend this to any teacher K-12.”

**翻译：来自宾州 ST 学区及 Colonial 学区：**

- “我很享受这个课程，我学到了很多内容。”
- “非常感谢你们带来的所有超级棒的增加学生参与度、有效性及提高学生数学和科学成绩的想法。”
- “这门课让我大开眼界，让我学到了如何把写作融入我的课堂里的方法和好处。”
- “这门课非常有效和有趣！我会把它推荐给所有 K-12 的教师。”

**2019 Summer Course Information 暑期课程安排**

Program: July 20-28, 2019(9 days)

Course: July 22-26, 2019 (5 days)

Course Location: Penn Catalyst Center



项目时间：2019 年 7 月 20 日-28 日  
课程时间：2019 年 7 月 22 日-26 日  
上课地点：宾夕法尼亚大学教育领导力中心

### Course Facilitators 课程导师:

**Mrs. Janelle Brojakowski** is a senior faculty member with a specialty in elementary education, science, STEAM and project-based learning with the integration of technology for PLN. Mrs. Brojakowski has developed K-12 curriculum and resources for PLN. Through her 15 years of teaching she has taught over 300 educators. She has held many leadership roles throughout her professional career: Elementary Science Department Chair; Informational Technology Support Building Specialist; Positive Behavior Intervention and Support (PBIS) Leadership Team; facilitator of district-wide professional development workshops; School-Improvement and Comprehensive Plan Committee.

**Janelle Brojakowski 女士**是 PLN 的高级导师，擅长小学教育、科学、STEAM 和融合技术教学的项目式学习的师资培训。她获得了宾夕法尼亚州立大学的小学教育学士学位及曼斯菲尔德大学信息技术与图书馆学硕士学位。Brojakowski 女士为 PLN 开发了 K-12 课程和资源，并为 K-12 教育工作者提供了研究生程度的 PLN 学分课程。

在 15 年的 PLN 教学历程中，她教授了 300 多名教育工作者。她在整个职业生涯中担任过许多领导职务，包括：小学科学系主任；信息技术支持专家；积极行为干预和支持（PBIS）领导团队；三年级和四年级教师组长；学区职业发展工作坊的教学者；学校改进和综合计划委员会成员；以及学区示范教师。

**Mrs. Kathleen Genzano** taught mathematics for over 30 years. She was a math department chair at Gloucester Catholic High School in New Jersey for 11 years and she was the math department chair at Gloucester City Junior/Senior High School in New Jersey for 14 years. For the past 20 years, Kathy has been working as PLN's Math Coordinator. Kathy has taught more than 480 K-12 educators through PLN.

**Kathleen Genzano 女士**教授数学超过 30 年。她曾在新泽西格洛斯特天主教高中担任数学系主任 11 年，并在新泽西格洛斯特市初中/高中担任数学系主任长达 14 年。

在过去的 20 年里，她作为 PLN 的导师和数学教学统筹人，教授超过 480 名 K-12 教育工作者。Kathy 的 PLN 工作包括教授研究生课程，研讨会和课堂指导，她的教学重点是培训数学教师。她毕业于 Glassboro 州立学院/罗文大学，获得本科和硕士学位。



## Guest Speakers 特邀讲师:

**Dr. Bonnie Botel-Sheppard** has directed The Penn Literacy Network since 1990 and has facilitated PLN courses since 1981. Her work for PLN includes the development and support of PreK-12 PLN courses, workshops and coaching programs.

**Bonnie Botel-Sheppard 博士**, PLN 现任执行主任 (1990-)。她在 PLN 的教学生涯可以追溯回 1981 年。她的职责包括开发和维护学前-12 年级的 PLN 课程、工作坊和指导项目。



## 2019 PLN 1C Arrangement on Campus 宾大教师培训项目美国段行程

日期 Date		内容安排 Content	住宿 Housing
July 20 7月20日	Sat. 周六	Arrival and airport Pick-up (8am-10pm) 到达费城，行知工作人员安排接机（早上8点-晚上10点）	On Campus 校内宿舍
July 21 7月21日	Sun. 周日	Visit Old City 上午费城老城区参观 Campus Tour 下午宾大参观	On Campus 校内宿舍
July 22 7月22日	Mon. 周一	PLN Course and assignment PLN 课程+作业	On Campus 校内宿舍
July 23 7月23日	Tue. 周二	PLN Course and assignment PLN 课程+作业	On Campus 校内宿舍
July 24 7月24日	Wed. 周三	PLN Course and assignment PLN 课程+作业	On Campus 校内宿舍
July 25 7月25日	Thur. 周四	PLN Course PLN 课程	On Campus 校内宿舍
July 26 7月26日	Fri. 周五	Visit AFS and ceremony 学校参观和理论课程结业仪式	On Campus 校内宿舍
July 27 7月27日	Sat. 周六	Visit the Hill and Outlets 参观 the Hill School，高中十校联盟之一 下午折扣店购物	On Campus 校内宿舍
July 28 7月28日	Sun. 周日	Departure and airport drop-off (8am to 10pm) 费城返回始发地，行知工作人员安排送机（早上8点-晚上10点）	
By Nov 15 11月15日或之前		Final project due 提交结业作业	
12月中旬		Grade is available; transcript could be requested 最终成绩公布，可向宾大学生注册办申请成绩单	

### 报名和咨询

项目顾问：Michelle Shuai Shen, PLN Asia-Pacific Program Liaison & Advisor 亚太地区总联络人&顾问

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