Program for Instructional Support for Teacher of English Learners

Evaluation Report

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Project Evaluator

CONTENTS:

Needs analysis

In December 2017 and January 2018, a needs analysis was conducted with each project partner school or district. Representatives from each partner were interviewed to determine what would be the most effective use of the resources provided by this grant, while keeping to the original funding guidelines.

Without exception, all partners confirmed that the goals, activities, and anticipated outcomes of our project were directly in line with their needs in terms of training and certification of ESL/BDL teachers in their school or district. Additionally, all partners expressed the need for this type of opportunity for their secondary teachers, and more resources generally to support training in TESOL and/or BDL methods, particularly with the goal of certification for more of their teachers.

Given that our project training activities were specifically focused on TESOL methods of teaching with a focus on the Eureka Math curriculum (Common Core Based), all of our project partners were confident that our proposed activities fit very well with their needs when it comes to teach ELLs math in grades K-6.

Activities

Orientation & pre-assessment

An orientation meeting was held on December 1, 2017 at the URI Providence campus. After a brief welcome, overview, and icebreaker, information was provided and discussion was facilitated on:

- Administrative details for MA students at URI (cost, registration procedures, etc.);
- Details about URI's MA in TESOL program, including what coursework and practicum work would still be needed beyond the classes in this grant project;

- Details about the URI courses they would be taking in the coming spring, summer, and fall semesters;

- The content and goals of the summer institute, including a brief conversation with the leader of the institute, Dr. Kees deGroot; and

- Requirements for TESOL certification.

Participants were then given a to-do list for getting registered for classes through the URI Graduate School, including contact information and web addresses, and detailed information about how to navigate the Graduate School's requirements and deadlines. This was followed by a guided tour through URI's Sakai course management system, which participants would be using as the portal for their online coursework, and distribution of textbooks (paid for by the grant) for all of their coursework. Lastly, the math and TESOL/BDL pre-assessments were administered in a web-based format. The math assessment was generated by a URI adjunct faculty member who holds a joint appointment in the School of Education and the math department. The assessment is based on the Common Core State Standards for Mathematics. The TESOL/BDL assessment was generated by a URI adjunct faculty member who is the co-director of URI's MA in TESOL program. The assessment is based on released and test prep items from the Praxis Test for Teachers of English to Speakers of Other Languages (ETS test #5362).

Spring coursework

During the spring 2018 semester, project participants took:

EDC 501: Socio-Cultural Aspects of Language Minority Education (online).

Course Description: An analysis of the social, political, historical, cultural, economic, and linguistic factors affecting educational quality and access to education of language minority students.

Course Goals:

- Demonstrate an understanding of historical trends and legal issues related to the education of language minority students.

- Analyze educational policies and practices affecting language minority students including program design and models, curriculum and instruction, identifying and exiting students, and monitoring students' progress with consideration of social, political, historical, cultural, economic, and linguistic factors.

- Analyze the impact of effective parent communication and involvement and advocacy for language minority students.

Student Learning Outcomes: You will be able to…

- Demonstrate an understanding of language laws and policies that impact language minority students (TESOL 3.a.2, 4.a.5; RITPS 11)

- Apply knowledge about selecting and evaluating effect language program models based on student and community needs and resources (TESOL l.b.l, 4.a.l; RITPS 4, 7)

- Understand and apply knowledge about communication between home and school to enhance ESL teaching and build partnerships with families (TESOL 2.d., 5.b.6; RITPS 1, 7)

- Identify, research, and attempt to resolve a problem impacting language culturally and linguistically diverse (CLD) students through a school or district-based problem-resolution assignment (TESOL 5.b.3; RITPS 4, 7)

- Connect knowledge of TESOL Standards to problem-solving in an educational community (TESOL 5.b.7; RIPTS4, 7)

- Present findings from research to support claims about education program and policies that impact CLD students (TESOL 2.a., 5.a.3; RIPTS 3, 7)

- Expand knowledge of CLD students by exploring current research and trends (TESOL l.b.l, 5.a.3; RIPTS **10)**

- Demonstrate leadership and advocacy skills for the linguistic and cultural rights of CLD students (TESOL 5.a.2, 5.b.5; RITPS 4, 7)

EDC 563: Literacy for Multicultural Populations (online)

Course Description: EDC563 focuses on identifying and teaching to the literacy strengths and needs of children and adults of diverse socioeconomic, cultural, and linguistic backgrounds. Through readings, class discussions, and fieldwork, students will explore various instructional techniques for teaching literacy to multicultural populations.

Course Goals:

- Understand the relationship between language and literacy acquisition (IRA 1.1, 4.1; SOE Theme 1; RIPTS1; TESOLlb)

- Understand common assessments used with culturally diverse students including ELL students (IRA 3.3, SOE Theme 3; RIPTS 9; TESOL 4a)

- Explore culturally relevant pedagogy for teaching literacy to English Language Learners and children and young adults from diverse cultural, linguistic, and socioeconomic backgrounds (IRA 2.1, 2.2, 2.3; 4.2, 4.3; SOE Theme 1, 3; RIPTS 4; TESOL 3a, 3c)

- Realize own perceptions of learners of different backgrounds and understand of political, contextual, social, and individual influences on literacy learning (IRA 4.1, 4.3, 5.2, 6.2; SOE Theme 3; RIPTS 4 and 10; TESOL 2)

- Display cultural competence in communications with students, parents, teachers, and other professionals (IRA 1.3; 4.1, 4.3, SOE Theme 6; RIPTS 11; TESOL 5b)

Student Learning Outcomes: Students will:

- Synthesize readings, research, and personal experience on language, culture and literacy in contributions to online discussion forums. (Course goals 1 and 4).

- Demonstrate an understanding of personal cultural reference points and their effects on students in the classroom. (Course goals 3, 4, and 5).

- Create appropriate academic and linguistic learning objectives based on background information of students and understanding of how culture impacts learning. (Course goals 1, 3 and 4)

- Design an appropriate instruction plan for a reading lesson for a diverse population of students including ELL's centered based on student needs and WIDA Standards and utilizing appropriate methods of instruction and appropriate resources. (Course goal 3 and 5)

- Using information about assessments gleaned from class readings and discussions, identify and analyze an assessment method that could be used to measure student learning described in the lesson plan. (Course goal 2)

Pre-observation

Early in the spring 2018 semester, participants were observed teaching a math lesson in their own classrooms. Observers used the Sheltered Instruction Observation Protocol (SIOP) [see appendix C], which focused their observations on specific strategies used (or not used) by the teachers for supporting English language learners in content areas. The goal of these observations was to get baseline data on what these teachers were already doing to support ELLs in their classrooms, particularly in terms of teaching math.

Summer coursework

During URI's first summer session (5/22 – 6/22), participants took:

MTH 492: Numeracy for Teachers (hybrid)

Course Description:

In this course, we will explore the structures of fundamental topics within K-8 mathematics. This deeper look into mathematics will afford teachers to make connections among concepts and skills within and across topics they teach: problem solving; number systems and operations with numbers; place value; multiplicative reasoning, ratios, rate, and proportions; and geometry.

Course Goals:

- Develop your own personal mathematics knowledge base, to develop an understanding of how you think about different topics.

- Analyze and organize the interconnectedness of various subjects in mathematics and see the numerous connections between them.

- Review and consider the Common Core content areas of - Counting and cardinality; the Number system; Place-value, Number and operations in base 10, Operations and algebraic thinking; Measurement and data; Statistics and probability; Geometry; Ratios and proportional relationships, Expressions and equations, and Functions

- Become more proficient at verbal explanations while using appropriate mathematics terminology with precision.

- Employ the deeper understanding of the course topics to plan for the needs of diverse learners.

During URI's second summer session (6/26 – 7/27), participants took:

EDC 515: Structured English Immersion and Sheltered English (online)

Course Description:

The focus of this course is on developing the capacity for teachers to effectively teach English Learners (ELs) English while concurrently teaching students the content and skills necessary to

be active and productive citizens in our society. We will examine the history of Structured English Immersion (SEI) and English as a Second Language (ESL) instruction in the United States simultaneously focusing changes in educational policies effecting English language learning. Understanding these contexts, we will explore methods of English instruction to second language learners focusing on the "Sheltered Instruction Observation Protocol" (SIOP) model developed by researchers and teachers affiliated with the Center for Applied Linguistics (CAL) and the National Center for Research on Education, Diversity, and Excellence (CREDE). Participants will use the SIOP model to research effective instructional strategies across content areas in an applicable setting (K-12, adult, Dual Language Immersion) and will design a lesson in one of those content areas consistent with the SIOP Model.

Student Learning Outcomes:

(with TESOL/NCATE teacher standards and Rhode Island Professional Teaching Standards)

- Examine and reflect on the historical and political context of education for English Language Learners and their families. [TESOL/NCATE l.b.l, l.b.4, 2.a-2.c, 2.e, 2.g] [Assessed: Online discussions and Final Reflections]

- Discern the impact of national and state education policy mandates on the teaching and learning in schools that educate English Language Learners. [TESOL/NCATE l.b.l, l.b.4, 2.b] [Assessed: Online discussions and Final Reflections]

- Know and apply theories and research of first and second language acquisition and apply to the selection of content-area strategies consistent with Sheltered English Immersion (SEI) and Sheltered Instruction Observation Protocol (SIOP) to construct an online presentation in each content and grade-level area. [TESOL/NCATE 1 .b. 1-3, l.b.5, 3.a.l, 3.b.l-3.b.8, 3.c.l-3.c.4] [Assessed: Online discussions, SIOP Lesson Plan, and Critique of Lesson Plans]

- Apply knowledge of instructional approaches to second language learning in academic settings by designing sheltered English lessons with content and language objectives to include all eight components of the Sheltered Instruction Observation Protocol (SIOP). [TESOL/NCATE l.b.3, l.b.5, 3.a.l-3.a.5, 3.b.l-3.b.8, 3.c.l-3.c.4] [Assessed: SIOP Graphic Organizer, SIOP Lesson Plan, and Critique of Lesson Plans]

Summer institute

The project summer institute was held the week of 7/30 to 8/3. The purpose of this institute was for participants to engage in professional development that is specifically focused on the relevant content in the (Eureka and EngageNY) math curricula, including how to support ELLs in a mainstream or sheltered classroom. Participants brought the first curriculum module they planned to teach in the fall and engaged in intensive curriculum development to modify the module lessons based on what they had so far learned in their coursework and from their focused observations. During the fall 2018 participants were to teach their revised modules.

Overview:

Participants worked in two different structures: Grade level groups to modify grade level units and inter-grade groups to discuss vertical development of curriculum with respect to the day's focus. Each day they reviewed and modified their units based on a given focus or lens. This was introduced at the beginning of each day in a workshop format, meaning they completed five cycles of modifications. On Day 5 participants prepared the revisions for submitting to the project. All work was done in shared Google Drive folders.

Daily agenda:

Day 1 July 30

9;00 – 10:00 Experience a lesson in another language

10:00 - 10:30 Focus on Bridging the Information Gap

10:30 – 2:00 Grade level groups work on modifying unit.

- Create a document that inventories all math language that will need to be taught explicitly in each lesson

- Create language objectives for all lessons

- Describe instructional strategies and tools to teach the math language

2:00 – 3:00 Inter-grade consultancy

- Investigate with colleagues from other grades how the language within the topic that spans your respective units develops over the grades and what strategies are effective in promoting this development.

- Create a summary in your unit folder of important takeaways of this investigation

Day 2 July 31

9:00 – 10:00 Workshop focus: Reformulating information in the unit, such as word problems and other instructional text and mathematical notation from the perspective of other countries.

10:00 – 2:00 Grade level groups work on modifying unit.

- Create a document with all revised text and other information that is modified for ELLs for each lesson using the principles established in the morning workshop.

- Review the mathematical notations used in the unit and link these with notations from other countries that are relevant to your student population.

2:00 – 3:00 Inter-grade consultancy

- Investigate with colleagues from other grades how a text and notation modifications within the topic that spans your respective units develops over the grades and what strategies are effective in promoting this development.

- Create a summary in your unit folder of important takeaways of this investigation.

Day 3 August 1

9:00 – 10:00 Workshop focus: Enhancing student-to-student communication opportunities in the unit.

10:00 – 2:00 Grade level groups work on modifying unit.

- Create a document with clearly designed collaborative structure(s) for each lesson to enhance student-to-student communication from the perspective of bridging information gaps rather than knowledge gaps.

- Consider the practice of Translanguaging and if it applies design deliberate structures in the lessons.

2:00 – 3:00 Inter-grade consultancy

- Investigate with colleagues from other grades how collaborative structures and student-to-student communication within the topic that spans your respective units develops over the grades and what strategies are effective in promoting this development.

- Create a summary in your unit folder of important takeaways of this investigation.

Day 4 August 2

9:00 – 10:00 Workshop focus: Visualizing and concretizing mathematics.

How are manipulatives useful with ELLs? How do we use mathematical models effectively with ELLs? What is the role of diagramming and drawing with ELLs?

10:00 – 2:00 Grade level groups work on modifying unit.

- Create a document with modified visualizations and concretizations, including modified contexts, using the principles established in the morning workshop, including detailed implementation guidelines.

2:00 – 3:00 Inter-grade consultancy

- Investigate with colleagues from other grades visualizations and concretizations within the topic that spans your respective units develops over the grades and what strategies are effective in promoting this development.

- Create a summary in your unit folder of important takeaways of this investigation.

Day 5 August 3

9:00 – 9:30 The Engage NY Resource guide for teaching ELLs, a lens for looking back at your unit design.

9:30 – 10:00 Whole group brainstorming possible solutions to implementation hurdles of your unit.

10:00 – 11:00 Review of vertical development of pertinent topics.

11:00 – 1:30 Finish work on the unit that is left over from the first four days. Create a document in which you describe your implementation plan in detail. Be prepared to share this with the whole group.

1:30 – 2:45 Presentations and sharing of implementation plans.

2:45 – 3:00 Reflections and closure.

Fall coursework

During the fall 2018 semester, project participants took:

LIN 420: Second Language Acquisition and Assessment (online)

Course Description: An evaluation of current trends and developments in the understanding of second language learning; analysis of second language acquisition research and its practical implications.

Course Goals:

- Demonstrate an understanding of language as a system and an increased competence in helping language learners acquire new language.

- Know and understand the major theories, concepts, principles, and research related to the nature of language and the factors that influence and support language learners' growth and achievement.

- Demonstrate familiarity with a variety of standardized language proficiency assessment instruments and with the most appropriate accommodations to meet students' needs.

Student Learning Outcomes: You will be able to...

- Describe the processes of first and second language acquisition as well as delineate the major theories of language acquisition and learning [TESOL Standard lb].

- Understand the components of the language system (phonology, morphology, syntax, semantics, pragmatics) as well as discourse varieties, aspects of social and academic language [TESOL Standards la and lb; RIPTS 1].

- Explain the factors that influence language acquisition, including the biological, neurological, cognitive, affective, linguistic, and personality characteristics of learners and those related to learning conditions [TESOL Standard lb; RIPTS 3, 4].

- Define key terms, concepts and issues related to second language acquisition (e.g. social language, academic language, communicative competence, interlanguage, fossilization, error correction, feedback) [TESOL Standard lb; RIPTS 3].

- Refute widely-held myths and erroneous beliefs about second language learning and second language learners [TESOL Standard lb; RIPTS 11].

- Increase professional skills by analyzing key professional journals and Internet-based resources designed to support professionals working with second language learners [TESOL Standard 5b; RIPTS 10].

- Understand a variety of standardized assessment instruments used with English language learners [TESOL Standard 4a, RIPTS 9].

Post-observation

A major element of this project was the expectation that all participants would teach their revised math curriculum units early in the new school year, preferably in September, but by mid-October at the latest. During the implementation of the revised units each participant was observed again using the SIOP observation protocol [appendix C]. The intention here was to collect data that could be compared to results from the first observation to determine the impact of the coursework and summer institute that participants had completed during the interval between the pre- and post-observations.

Wrap-up/debriefing meeting & post-assessment

A final project meeting with all participants was held on October 25, 2018 at URI's Providence campus. At this meeting, results from the SIOP pre- and post-observation analysis were presented and discussed. Time was also given for participants to provide feedback on the project, including what they thought was effective and what could be improved in future efforts like this. The requirements for continuing past this project to get the full MA in TESOL were reviewed, and the math and TESOL/BDL post-assessments were administered in the same web-based format used for the pre-assessments.

Impact

Analysis of data

Since it could not be assumed that the population of project participants was normally distributed, a non-parametric statistical test was used to compare results of pre and post observations and tests. The Wilcoxon signed rank test can be used in place of a t-test for dependent groups to determine the likelihood that two dependent samples are from similarly distributed populations when any of the assumptions of the t-test (continuous dependent variable; independent observations; normal distribution of dependent variable; no outliers in data set) are violated. Hypotheses tested using the signed rank test compare population medians, in this case on two repeated measures. Additionally, it takes the magnitude of observed differences into account. The null hypothesis in this instance was that any changes in observation ratings or test scores is best explained by random chance.

Implementation of TESOL strategies

Analysis of the data from the pre and post observations of teaching (Appendix C) indicates that a rejection of the null hypothesis is warranted. Increase in ratings observed for 75% of SIOP categories was statistically significant. Given that none of the participants were engaged in any activities focused on TESOL strategies outside of the instruction provided by our program during the course of the project, it is reasonable to conclude that coursework, course assignments, and readings provided through this project are the best explanation for observed improvements in practice.

For the eight SIOP categories in which change in rating occurred but was not statistically significant, the data aligned to two categories:

1) Concepts and skills learned in TESOL methods courses:

- Key vocabulary emphasized (observation category 9)

- Speech appropriate for students' proficiency level (observation category 10)

- Ample opportunities provided for students to use learning strategies (observation category 13)

- Hands-on materials and/or manipulatives provided for students to practice using new content knowledge (observation category 19)

- Ample opportunities for students to clarify key concepts in L1 as needed with aide, peer, or L1 text (observation category 20)

2) Skills practiced and supported in student teaching practicum under supervision of a licensed TESOL teacher:

- Content objectives clearly supported by lesson delivery (observation category 23)

- Students engaged approximately 90% to 100% of the period (observation category 25)

- Pacing of the lesson appropriate to students' ability level (observation category 26)

While the data do not provide specific evidence for why growth in these categories was not statistically significant, it should be noted that the post-observations were conducted during the first part of the fall 2018 semester, when students were in the process of completing their main TESOL methods course, and well before their spring 2019 student teaching placements. Thus it is reasonable to conclude that at the point of data collection, participants had not yet fully received the targeted instruction and readings that might have helped address the areas of practice for which change over time was not a conclusive indicator of growth resulting from project activities.

TESOL/BDL pedagogy assessment

Because results of the TESOL/BDL assessment were binary (correct/incorrect), the Wilcoxon signed rank statistic was used to evaluate change in median scores across the entire protocol, and not for individual test items. Analysis of results of the pre and post-assessments

(Appendix B) shows that overall change in performance between pre-and post-assessments was statistically significant, and that scores increased for 75% of items. Given that none of the participants were engaged in any activities focused on TESOL strategies outside of the instruction provided by our program during the course of the project, it is reasonable to conclude that coursework, course assignments, and readings provided through this project are the best explanation for increased scores.

Math content knowledge

Because results of the math content knowledge assessment were binary (correct/incorrect), the Wilcoxon signed rank statistic was used to evaluate change in median scores across the entire protocol, and not for individual test items. Analysis of results of the pre and post-assessments (Appendix B) shows that overall change in performance between pre-and post-assessments was statistically significant, and that scores increased for 60% of items.

Growth, or lack thereof in math content knowledge for participants is less easy to parse in this case, since it is more difficult to determine the extent to which participants were engaged in mathematical learning and/or activities outside of the summer math course provided by the project (MTH 492). So, while it is reasonable to reject the null hypothesis in this case ($p < .005$ for analysis of change in median scores between pre and post-assessments), we would encourage anyone engaged in similar training endeavors to conduct further assessments to determine growth in math content knowledge of participants in a more fine-grained manner.

Continuation of program to full MA in TESOL

A final indicator of the success of this project is the fact that 94% of participants (14/15) have continued beyond the project activities to pursue completion of the MA degree in TESOL/BDL at URI. The scope of coursework and project activities as originally proposed was

limited to participant qualification for a certification extension in TESOL/BDL. While project leaders emphasized to participants that completion of the project activities and coursework would lead them to completion of 2/3 of the MA degree requirements, and thus it would make economic sense to complete the final 1/3, the decision to do so was left entirely to the participants.

We feel it is important to emphasize to the Board of Post-Secondary Education that our qualitative interview data from participants indicates that such a large portion of project participants choosing to complete the full MA degree was specifically a result of funding provided by the state to participants to enable them to complete the certification option. Every participant who was interviewed specifically stated that the provision of funds to cover tuition and books was a deciding factor in their pursuit of the certification, which then allowed them to finish the final 1/3 of the MA program at their own expense.

Conclusion

Given the results of all statistical analyses of project data, we feel that it is reasonable to conclude that the design and implementation of this project was a success. More specifically, participation in this project appears to have positively influenced participants' TESOL classroom teaching practices, potential performance on the TESOL Praxis exam, and math content knowledge. We encourage the Board of Post-Secondary Education and other relevant state agencies to continue to make these types of funds available to teachers interested in pursuing further studies and/or training in TESOL/BDL pedagogy and practice.

Appendix A: Pre/post assessments

Math Assessment:

1. Identify which expression best represents the student's thinking based on this illustration:
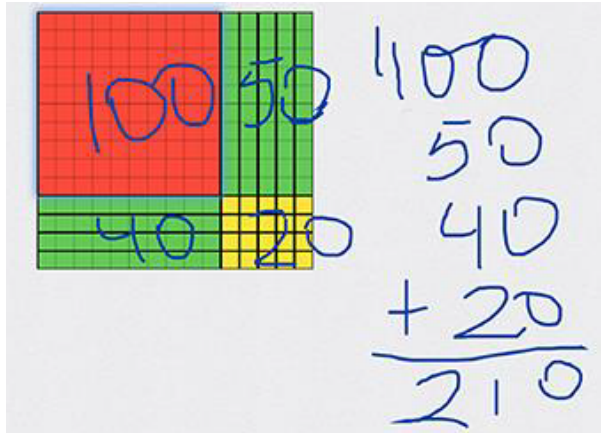
a) (10 x 10) + (4 x 10)

b) 100 + 40 + 50 + 20

c) (10 + 4) x (10 + 5)

d) 10 x (4 + 5) + 20

2. Which of the following expression(s) is or are equivalent to the given quantity? Select all that apply.

$$\frac{3}{4}$$

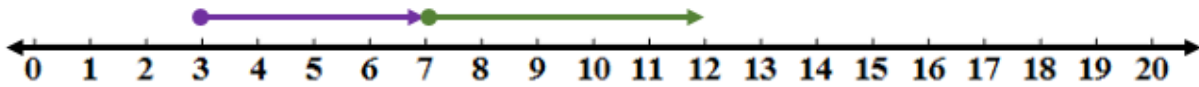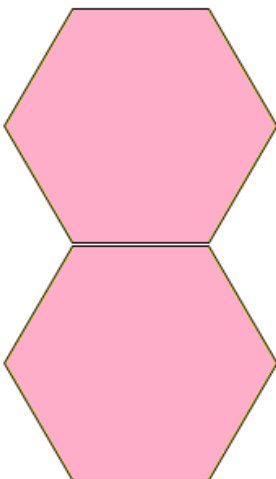Option 1:   Option 2:   Option 3:   Option 4:

$$3 \times \frac{1}{4} \qquad\qquad 3 \div 4 \qquad\qquad 3 \times (1 \div 4) \qquad\qquad 4 \div 3$$
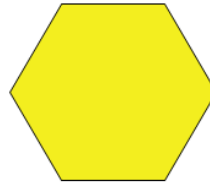
3. What addition problem is illustrated on the number line below? Explain your reasoning.

4. Which of the pattern blocks below is equivalent to one third of this figure?

a) 1 Red Trapezoid

b) 1 Black Double Rhombus (aka Chevron)
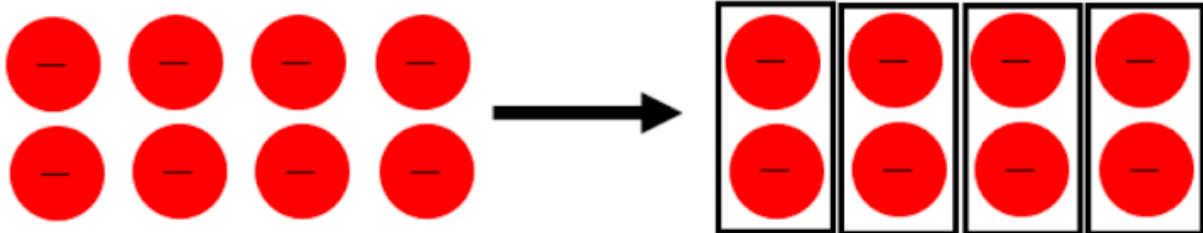
c) 1 Yellow Hexagon

d) 1 Blue Rhombus

5. What number sentence corresponds to the illustration below?

a) -8 ÷ 2   b) 2 x -4   c) 4 x -2   d) -8 ÷ 4

6. What number sentence corresponds to the illustration below?

Option 1

$$\frac{2}{3} + \frac{1}{2} = \frac{7}{6}$$

Option 2

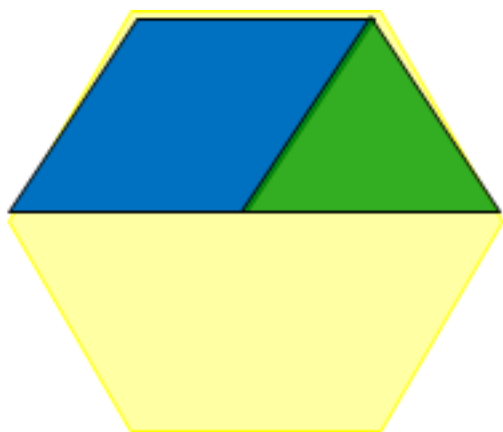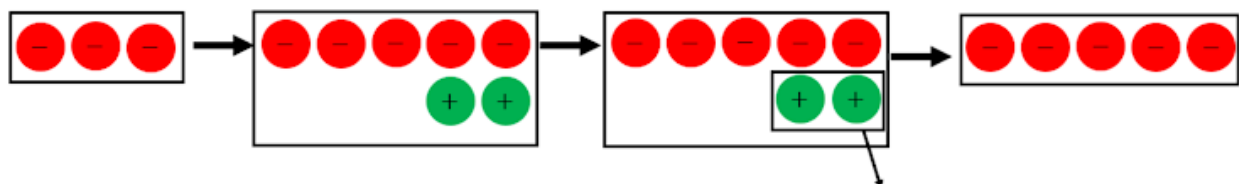$$\frac{1}{2} + \frac{1}{3} = \frac{5}{6}$$

Option 3

$$\frac{1}{6} + \frac{5}{6} = \frac{6}{6}$$

Option 4

$$\frac{2}{4} + \frac{3}{6} = \frac{5}{6}$$

7. What number sentence corresponds to the illustration below?

Option 1	Option 2	Option 3	Option 4
$\dfrac{1}{3}+\dfrac{1}{6}=\dfrac{1}{2}$	$\dfrac{1}{3}-\dfrac{1}{6}=\dfrac{1}{6}$	$\dfrac{1}{3}+\dfrac{1}{2}=\dfrac{5}{6}$	$\dfrac{1}{2}-\dfrac{1}{3}=\dfrac{1}{6}$

8. What number sentence corresponds to the illustration below? *

a) $-3 + 2 = 5$

b) 5 - 2 = 3

c) -3 + 0 = -5

d) -3 - 2 = -5

9. Which of the following word problems would be modeled by this expression?

$$\frac{3}{4} \div \frac{1}{4}$$

a) You have 3/4 of a pizza and you want to share it equally between 4 people. How much of the pizza does each person get?

b) A cake recipe calls for 1/4 cup of oil. How many cakes can be made if you have 3/4 cups of oil?

c) Each pillow case uses 3/4 of a yard of fabric. How many pillow cases can they make out of 1/4 of yard of fabric?

d) There's 3/4 of a pan of brownies and you decided to eat 1/4 of the brownies. How much of the whole pan did you eat?

10. Please write a number sentence and explain your reasoning illustrated by the number line below.
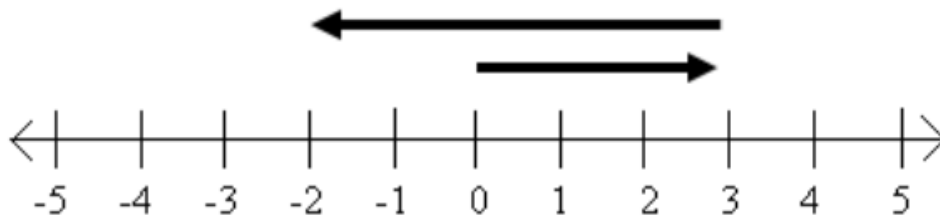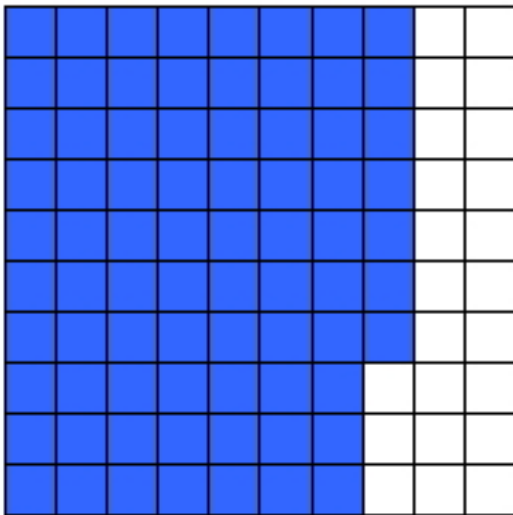

11. How many ones are in the base-ten number 891, when represented in expanded notation?

a) 1

b) 9

c) 91

d) 891

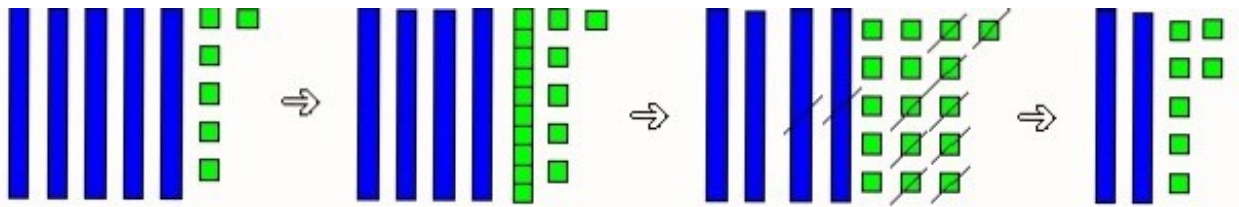12. Which decimal fraction is represented by the shaded region?

a) 0.23

b) 0.7

c) 0.77

d) 7.7

13. The base-ten system is symmetric around the _____.

   a) ones place

   b) decimal point

   c) tens place

   d) tenths place

14. Please write a number sentence and explain your reasoning that corresponds to the problem being modeled below.

15. What number is equivalent to the expanded form shown below? *

$$(3 \times 10^2) + (5 \times 10^0) + \left(7 \times \frac{1}{10}\right) + \left(2 \times \frac{1}{10^3}\right)$$

   a) 3.572

   b) 30.5702

c) 305.72

d) 305.702

16. The figure below shows two squares and a triangle. What is the total area of the shape?
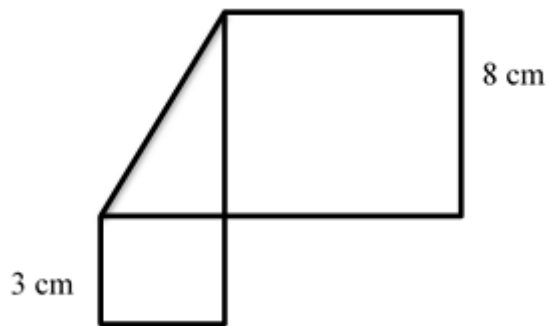
17. A bag contains 7 red, 3 yellow, some blue, and 4 green marbles. If the probability of selecting a blue marble is 30%. How would you determine how many blue marbles are in the bag?

18. What is the probability the skydiver will land on the black part of the landing pad illustrated below?

10 ft

10 ft

a) $\frac{12}{25}$

b) $\frac{12}{13}$

c) $\frac{13}{...}$
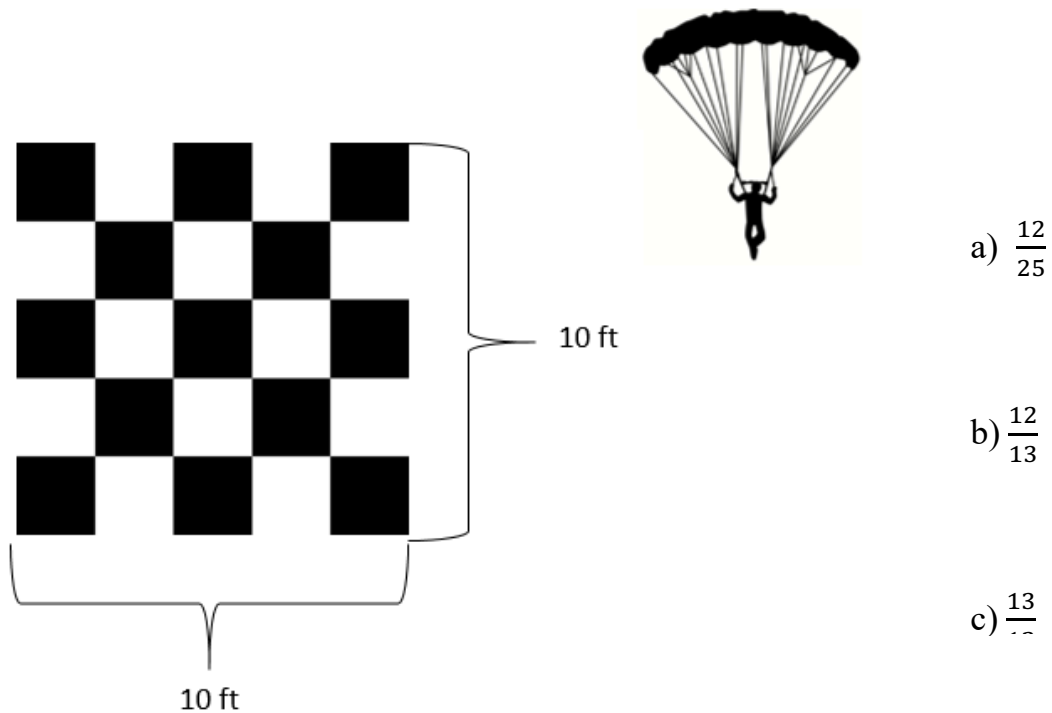
19. The next eruption lasts 17 days and 3 hours. Which central tendency measure will be affected by this additional data point?

Duration of volcanic eruptions (in days)
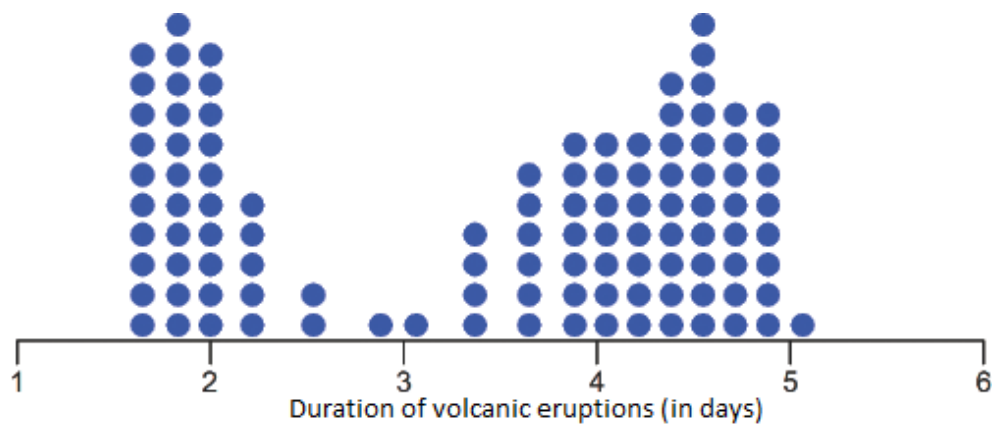
a) Mean

b) Median

c) Mode

d) Range

20. a) Explain why the mean is 6 for each of these distributions. b) What varies between these distributions.

A)

B)

C)

D)
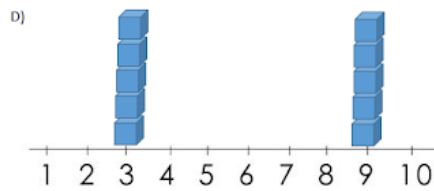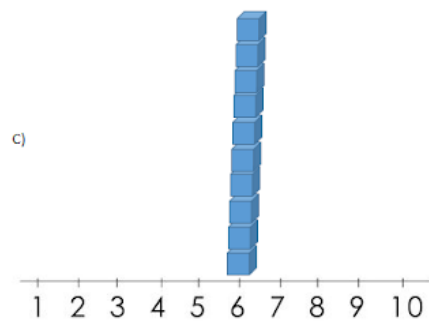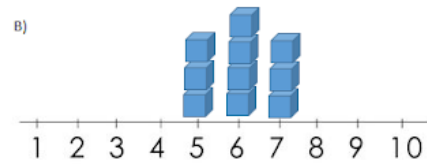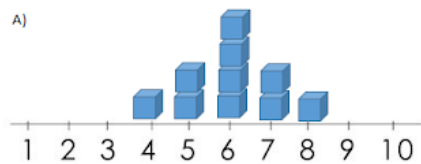
21. Which of the following rectangular solids will have the same volume as the one pictured below?

8 cm

30 cm²
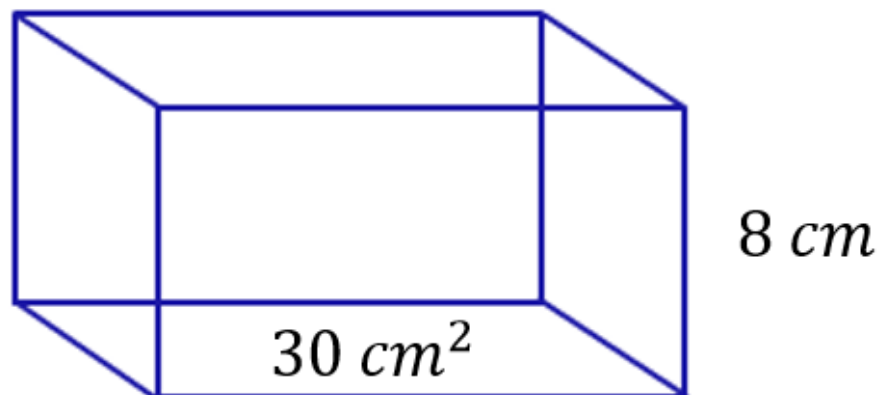
a) Base area of 48 square cm and height of 5 cm.

b) Base area of 16 square cm and height of 15 cm.

c) Base area of 20 square cm and height of 11 cm.

d) Base area of 8 square cm and height of 30 cm.

ESL/BDL Assessment

1. What is the initial tool used to identify potential ELs?
   a) Home Language Survey

   b) Parent Request

   c) Language Assessment Screener

   d) Teacher Recommendation

2. According to federal policy, English language assessments used to identify ELs and measure their AYP must include ALL of the following components EXCEPT:
   a) Listening

   b) Speaking

   c) Reading

   d) Writing

   e) School Readiness

3. Which of the following is NOT a requirement under Castañeda v. Pickard:
   a) EL programs must be developed from research-based practices

b) EL programs must include teachers who are certified in ESL or BDL

c) EL programs must be evaluated for effectiveness

d) EL programs must be provided with appropriate resources

4. Students are exited from EL identification when:
a) Teacher recommends that the student is strong enough to exit

b) Parent opts out of services

c) Student has been in the country ten years or more

d) Student demonstrates proficiency on annual English language assessment

5. According to federal guidelines, providing equal educational opportunities to ELs is primarily based on:
a) giving ELs and non-ELs the same learning materials

b) working to overcome the language and educational barriers that ELs face

c) giving ELs and non-ELs the same access to school facilities

d) working to maintain ELs' native languages and traditions in the school setting

6. Ms. Martinez plans to distribute the following handout to her ESL students and their family members as they enter her classroom at the beginning of back-to-school night. Which of the following is the most appropriate step for Ms. Martinez to take to make the handout more accessible to the EL students and their family members?

Welcome to Third Grade!

I am so happy to have you in my class; this is going to be a great year! Please go to a free desk and open the New Student Folder, which contains some important forms and information.
Tonight I will be asking you and your parents/guardians to complete the following tasks before you move on to meet your other teachers.

☐ Fill out the STUDENT INFORMATION CARD and return it to me.

☐ Fill out and sign the PERMISSION SLIP for our field trip to the museum and return it to me.

☐ Review the STUDENT MATERIALS CHECKLIST and make a note of any materials that you do not have.

☐ Fill out and sign the STUDENT LUNCH FORM and return it to me.

☐ Have fun talking to all of your teachers!

a) Asking families who share the same native-language background to sit together to discuss the handout

b) Providing families with bilingual dictionaries that are specific to their native languages

c) Ensuring copies of the handout have been translated into the students' native languages and are available

d) Asking the EL students to translate the handout into their native languages for their family members and to relay questions to the teacher

7. Eisha, an EL who recently arrived in the United States and came from a school where students spent their entire day in one classroom, begins school halfway through the academic year. On Eisha's first day, she seems confused when class is dismissed for lunch. She follows the other students to the school cafeteria, but upon arriving, does not take a seat. Eisha looks around and becomes upset. The ESL teacher asks her what is wrong, and Eisha says she doesn't know what to do. Which of the following is the most appropriate way for the ESL teacher to address the situation?

   a) Allowing Eisha to eat lunch in the teacher's classroom to provide her with a familiar experience

   b) Seating Eisha at a table by herself to ease her into the new experience of eating in the cafeteria

   c) Assigning Eisha a lunch buddy who can help her become familiar with the cafeteria process

   d) Labeling the cafeteria with words in Eisha's native language so she can more easily identify different foods and objects

8. Which of the following is the best example of an EL experiencing cultural assimilation?

   a) The EL seeks to maintain the traditions of his or her home culture while still actively learning about the new culture.

   b) The EL is unable to advance in language proficiency after several months of targeted instruction.

   c) The EL slowly adopts the language and customs of his or her new culture while identifying less with the home culture.

   d) The EL becomes frustrated with the new culture and often wishes to return to his or her country of origin.

9. Ms. Phelps, a middle school mathematics teacher, is concerned that one of her EL students is avoiding her because the student never looks at her when answering a question. Which of the following is the most appropriate advice for the ESL teacher to give Ms. Phelps?

a) Suggesting that Ms. Phelps refer the student to the school counselor if the issue persists

b) Explaining to Ms. Phelps that it is possible that avoiding eye contact is a sign of respect in the student's home culture

c) Telling Ms. Phelps to insist that the student make direct eye contact with her when spoken to

d) Recommending that Ms. Phelps also abstain from making eye contact in order to make the student feel more comfortable

10. During a staff meeting, a third-grade teacher voices concern about a beginning-level EL student. The student arrived in the U.S. three months ago and is still not participating in class and is not interacting with other students. Which of the following is the most appropriate advice that the ESL teacher can give the third-grade teacher?

a) We should discuss referring the student for a special education evaluation.

b) You should design activities that require the student to give frequent oral presentations.

c) New students from other countries can often be reluctant to participate and need time to observe the class before they feel ready to do so.

d) Contact the student's parents to explain the importance of regular classroom participation.

11. Which of the following is the most appropriate way for an ESL teacher to apply ELs' literacy skills in their first language (L1) to reading and understanding a new text in the second language (L2)?

a) Providing ELs with a translation of the text in their L1 and allowing them to decide which language they prefer to read the text in

b) Implementing prereading activities in the ELs' L1 as a precursor for beginning to read the text in their L2

c) Having the ELs read the text in their L2 and write journal entries that reflect their

opinions in their L1

d) Asking the ELS to discuss what sociolinguistic concepts in the text are shared between

their L1 and L2

12. How are language acquisition and language learning distinct?
   a) They are not distinct; the terms are interchangeable.

   b) Language acquisition develops unconsciously through use, while language learning

   requires instruction.

   c) Language learning precedes and is required for language acquisition.

   d) All of the above.

13. Those who argue that students should be allowed to use their home language in class cite
which of the following as the primary benefit of this practice?
   a) It allows for review of grammar of the students' home languages.

   b) It increases sociolinguistic awareness.

   c) It exposes other students to the concept of home languages.

   d) It enhances exposure to developmentally appropriate content.

14. A teacher seeking to design activities to help develop students' intrinsic motivation should be
most concerned whether the:
   a) student receives some sort of positive reinforcement, such as a reward or token, for

   completing the activities

   b) instructions for the activities are given in the student's native language

   c) activities establish a solid foundation for more complex lessons on the topic

   d) activities encourage the student to discover for themselves certain principles or rules

15. In daily lessons, Ms. Peterson is using vocabulary words and sentence structures that her students have seen before. Additionally, she incorporates words and structures that they have not yet studied. Ms. Peterson is using the concept of:
    a) Comprehensible input

    b) Natural order

    c) Positive transfer

    d) Self-monitoring

16. A math class with ELs at intermediate levels of proficiency is about to begin a unit on ratios. After the teacher states the purpose of the listening activity, the first step the teacher should take to develop the students' aural comprehension is to:
    a) introduce special terminology in class discussion

    b) provide students with written versions of the material

    c) provide students with the material in their home languages

    d) require students to take notes in English as they listen

17. A teacher is giving the class directions to set up a laboratory experiment. While giving the directions, the teacher points to each piece of equipment to help the ELs better understand the lesson. As the students begin to set up the experiment, the teacher notices that the ELs seem confused and are not arranging the equipment properly. Which of the following would be most likely to increase the comprehension of the ELs?
    a) While giving directions, the teacher will write key terms on the board so the ELs can see the names of the equipment

    b) While giving directions, the teacher will demonstrate physically how to use the equipment so the ELs can see and hear what to do

    c) The teacher will set up the ELs' experiments before the class begins

    d) The teacher will pair native English speakers with ELs so that the English speakers can explain how to set up the equipment

18. When an EL is brought before the child study team to be tested for learning disabilities, which of the following is correct according to IDEA?

    a) Schools must provide both English language support and special education support if the student qualifies

    b) Schools must provide English language support for one year before testing the EL for learning disabilities

    c) Schools may choose to offer the EL either English language support or special education support but not both

    d) Schools may choose to test an EL for learning disabilities in either English or the student's native language

19. Mr. Jones, an elementary school teacher, sent several notes home to Clara's parents to schedule a parent teacher conference. Clara explained that her parents are not comfortable coming in because they do not speak English and do not have a formal education. Which of the following is the most appropriate action for Mr. Jones to take?

    a) Arrange for an interpreter to join Clara's parents at the conference

    b) Ask Clara to interpret for her parents at the conference

    c) Request that a Spanish-speaking guidance counselor make a home visit

    d) Ask the principal to amend the policy for parent-teacher conferences

20. It is beneficial for ESL teachers to include lessons about cultural norms and customs of various countries into class activities because:

    a) the relationship between language and culture is deeply rooted

    b) ELs with have their affective filters lowered

    c) linguistic proficiency follows cultural proficiency

    d) ELs will be able to assimilate more easily

Appendix B: Pre- & post-assessment analysis results

ESL/BDL Assessment Results:

Participant	Pre-test score	Post-test score
1	11	14
2	12	17
3	14	14
4	15	16
5	14	15
6	12	16
7	9	13
8	11	14
9	13	16
10	17	16
11	15	15
12	14	14
13	12	14
14	12	14
15	13	17
		Wilcoxon's W: 2
		n: 12
		P-value: $p < .005$

Math Assessment Results:

Participant	Pre-test score	Post-test score
1	6	8
2	10	10
3	14	13
4	6	10
5	10	15
6	13	14
7	11	13
8	9	10
9	12	10
10	10	10
11	12	13
12	10	9
13	11	14
14	6	9
15	13	15
		Wilcoxon's W: 13.5
		n: 13
		P-value: $p < 0.05$

Appendix C: SIOP Observation Protocol

The Sheltered Instruction Observation Protocol (SIOP) (Echevarria, Vogt, & Short, 2000; 2004; 2008)						
Observer:	Teacher:					
Date:	School:					
Grade:	Class/Topic:					
ESL Level:	Lesson (check one): Multiday Single-day					

Directions: Check the box that best reflects what you observe in a sheltered lesson. You may give a score from 0-4 (or NA on selected items). Cite under *Comments* specific examples of the behaviors observed.

		Highly Evident		Somewhat Evident		Not Evident	
	Lesson Preparation	4	3	2	1	0	NA
1.	**Content objectives** clearly defined, displayed, and reviewed with students						
2.	**Language objectives** clearly defined, displayed, and reviewed with students						
3.	**Content concepts** appropriate for age and educational background level of students						
4.	**Supplementary materials** used to a high degree, making the lesson clear and meaningful (e.g., computer programs, graphs, models, visuals)						
5.	**Adaptation of content** (e.g., text, assignment) to all levels of student proficiency						
6.	**Meaningful activities** that integrate lesson concepts (e.g., surveys, letter writing, simulations, constructing models) with language practice opportunities for reading, writing, listening, and/or speaking						
Comments:							
		Highly Evident		Somewhat Evident		Not Evident	
	Building Background	4	3	2	1	0	NA
7.	**Concepts explicitly linked** to students' background experiences						
8.	**Links explicitly made** between past learning and new						

		concepts						
9.	**Key vocabulary** emphasized (e.g., introduced, written, repeated, and highlighted for students to see)							

Comments:

		Highly Evident		Somewhat Evident		Not Evident	
	Comprehensible Input	4	3	2	1	0	NA
10.	**Speech** appropriate for students' proficiency level (e.g., slower rate, enunciation, and simple sentence structure for beginners)						
11.	**Clear explanation** of academic tasks						
12.	**A variety of techniques** used to make content concepts clear (e.g., modeling, visuals, hands-on activities, demonstrations, gestures, body language)						

Comments:

		Highly Evident		Somewhat Evident		Not Evident	
	Strategies	4	3	2	1	0	NA
13.	Ample opportunities provided for students to use **learning strategies**						
14.	**Scaffolding techniques** consistently used assisting and supporting student understanding (e.g., think-alouds)						
15.	A variety of **questions or tasks that promote higher-order thinking skills** (e.g., literal, analytical, and interpretive questions)						
	Comments:						

		Highly Evident		Somewhat Evident		Not Evident	
	Interaction	4	3	2	1	0	NA
16.	Frequent opportunities for **interaction** and discussion between teacher/student and among students, which encourage elaborated responses about lesson concepts						

		Highly Evident		Somewhat Evident		Not Evident	
17.	**Grouping configurations** support language and content objectives of the lesson						
18.	Sufficient **wait time for student responses** consistently provided						
19.	Ample opportunities for students to **clarify key concepts in L1** as needed with aide, peer, or L1 text						
Comments:							
		Highly Evident		Somewhat Evident		Not Evident	
	Practice and Application	4	3	2	1	0	NA
20.	**Hands-on materials and/or manipulatives** provided for students to practice using new content knowledge						
21.	Activities provided for students to **apply content and language** knowledge in the classroom						
22.	Activities integrate all **language skills** (i.e., reading, writing, listening, and speaking)						
Comments:							
		Highly Evident		Somewhat Evident		Not Evident	
	Lesson Delivery	4	3	2	1	0	NA
23.	**Content objectives** clearly supported by lesson delivery						
24.	**Language objectives** clearly supported by lesson delivery						
25.	**Students engaged** approximately 90% to 100% of the period						
26.	**Pacing** of the lesson appropriate to students' ability level						
Comments:							
		Highly Evident		Somewhat Evident		Not Evident	
	Review and Assessment	4	3	2	1	0	NA
27.	Comprehensive **review of key vocabulary**						
28.	Comprehensive **review of key content concepts**						

29.	Regular **feedback** provided to students on their output (e.g., language, content, work)						
30.	**Assessment of student comprehension and learning** of all lesson objectives (e.g., spot checking, group response) throughout the lesson						
Comments:							
Total Points Possible: 120 (Subtract 4 for each NA given)							
	Total Points Earned:		**Percentage Score:**				

Appendix D: SIOP observation analysis results

SIOP Category: Lesson Preparation	Wilcoxon Signed Rank Results		
	W	n	Level
1. **Content objectives clearly defined**, displayed, and reviewed with students	0	11	**P<.001**
2. **Language objectives clearly defined**, displayed, and reviewed with students	0	14	**P<.001**
3. **Content concepts appropriate** for age and educational background level of students	0	7	**P<.001**
4. **Supplementary materials** used to a high degree, making the lesson clear and meaningful (e.g., computer programs, graphs, models, visuals)	8	10	**P<.05**
5. **Adaptation of content** (e.g., text, assignment) to all levels of student proficiency	17	14	**P<.05**
6. **Meaningful activities** that integrate lesson concepts (e.g., surveys, letter writing, simulations, constructing models) with language practice opportunities for reading, writing, listening, and/or speaking	7	10	**P<.05**

Comparison of Median Scores

Meaningful activities
Adaptation of content
Supplementary materials
Appopriate content concepts
Language objectives clearly…
Content objectives clearly defined,…

0 1 2 3 4 5

■ Post ■ Pre

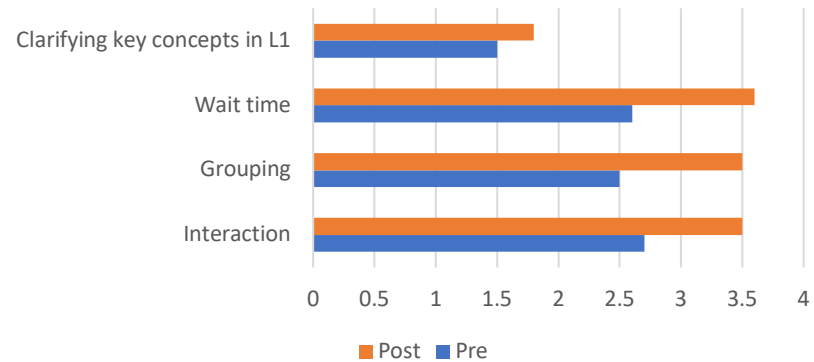| SIOP Category: Building Background	Wilcoxon Signed Rank Results		
	W	n	Level
7. **Concepts explicitly linked** to students' background experiences	1.5	11	**P<.005**
8. **Links explicitly made** between past learning and new concepts	0	10	**P<.001**
9. **Key vocabulary emphasized** (e.g., introduced, written, repeated, and highlighted for students to see)	11.5	9	**P<.2**

Comparison of Median Scores

Key vocabulary emphasized
Links explicitly made
Concepts explicitly linked

0   1   2   3   4   5

■ Post ■ Pre

SIOP Category: Comprehensible Input	Wilcoxon Signed Rank Results		
	W	n	Level
10. **Speech appropriate** for students' proficiency level (e.g., slower rate, enunciation, and simple sentence structure for beginners)	10	9	**P<.2**
11. **Clear explanation** of academic tasks	0	7	**P<.001**
12. **A variety of techniques** used to make content concepts clear (e.g., modeling, visuals, hands-on activities, demonstrations, gestures, body language)	0	11	**P<.001**

Comparison of Median Scores
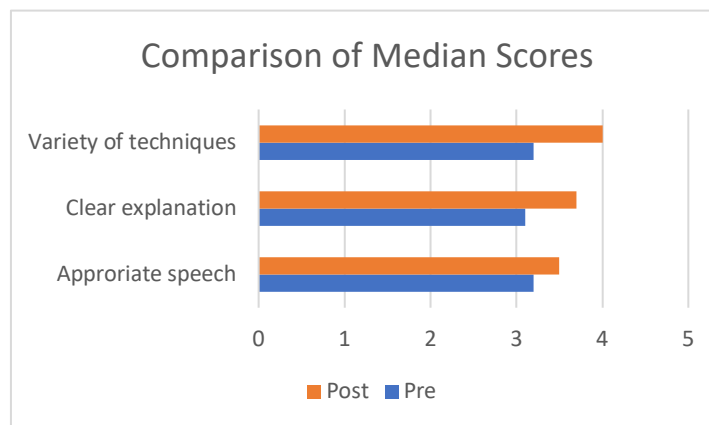
	SIOP Category: Strategies	Wilcoxon Signed Rank Results		
		W	**n**	**Level**
13.	Ample opportunities provided for students to use **learning strategies**	9	10	**P<.1**
14.	**Scaffolding techniques** consistently used assisting and supporting student understanding (e.g., think-alouds)	0	8	**P<.001**
15.	A variety of questions or tasks that promote **higher-order thinking skills** (e.g., literal, analytical, and interpretive questions)	0	7	**P<.001**

Comparison of Median Scores

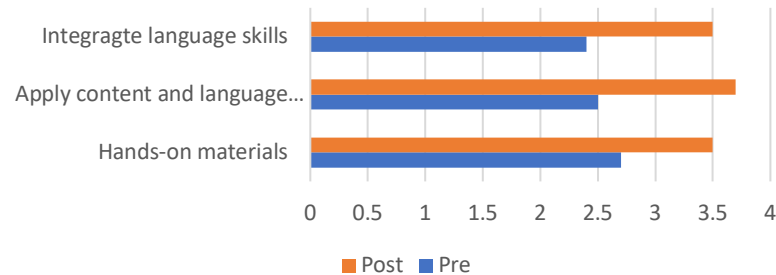|	SIOP Category: Interaction	Wilcoxon Signed Rank Results		
		W	**n**	**Level**
16.	Frequent opportunities for **interaction** and discussion between teacher/student and among students, which encourage elaborated responses about lesson concepts	4.5	11	**P<.01**
17.	**Grouping** configurations support language and content objectives of the lesson	3	10	**P<.01**
18.	Sufficient **wait time** for student responses consistently provided	0	11	**P<.001**
19.	Ample opportunities for students to **clarify key concepts in L1** as needed with aide, peer, or L1 text	9	7	**P<.2**

Comparison of Median Scores

SIOP Category: Practice and Application	Wilcoxon Signed Rank Results		
	W	**n**	**Level**
20. **Hands-on materials** and/or manipulatives provided for students to practice using new content knowledge	18	13	**P<.1**
21. Activities provided for students to **apply content and language** knowledge in the classroom	0	13	**P<.001**
22. Activities **integrate all language skills** (i.e., reading, writing, listening, and speaking)	4.5	13	**P<.005**

Comparison of Median Scores

SIOP Category: Lesson Delivery	Wilcoxon Signed Rank Results		
	W	n	Level
23. **Content objectives** clearly supported by lesson delivery	3.5	8	**P<.1**
24. **Language objectives** clearly supported by lesson delivery	0	4	**P<.001**
25. **Students engaged** approximately 90% to 100% of the period	5	10	**P<.2**
26. **Pacing** of the lesson appropriate to students' ability level	15	11	**P<.2**

Comparison of Median Scores

7

SIOP Category: Review and Assessment	Wilcoxon Signed Rank Results		
	W	n	Level
27. Comprehensive review of **key vocabulary**	4.5	12	**P<.005**
28. Comprehensive review of **key content concepts**	3.5	11	**P<.01**
29. Regular **feedback** provided to students on their output (e.g., language, content, work)	0	9	**P<.001**
30. Assessment of **student comprehension** and learning of all lesson objectives (e.g., spot checking, group response) throughout the lesson	8	10	**P<.05**

Comparison of Median Scores