
Global Certificate Course in Ethnomathematics Instruction

Assessment Strategies for Ethnomathematics

Academic Language refers to the specific language used in academic settings, including vocabulary, grammar, and discourse structures, which students need to master to succeed in their studies, and is a key concept in ethnomathematics instruction as it affects how mathematical concepts are communicated and understood.

Assessment Strategies are the methods and techniques used to evaluate student learning and understanding in ethnomathematics, including formative and summative assessments, which are crucial for identifying areas where students need additional support and for measuring the effectiveness of instruction. Authentic Assessment involves using real-world scenarios and practical applications to assess student learning, making the assessment more relevant and meaningful to students' lives, and is an important aspect of ethnomathematics instruction as it helps students see the connection between mathematical concepts and their everyday experiences.

Cognitive Load Theory suggests that the amount of mental effort required to complete a task affects learning and performance, and that instruction should be designed to minimize unnecessary cognitive load, which is a key consideration in ethnomathematics instruction as it helps instructors create effective and efficient learning environments.

Culturally Responsive Teaching involves using cultural knowledge and awareness to make instruction more relevant and effective for students from diverse backgrounds, and is a crucial aspect of ethnomathematics instruction as it helps instructors create inclusive and supportive learning environments.

Decolonization in mathematics education refers to the process of challenging and transforming the dominant western perspective on mathematics, and promoting a more inclusive and diverse understanding of mathematical knowledge and practices, which is a key concept in ethnomathematics instruction as it helps instructors create more equitable and just learning environments.

Diversity in mathematics education refers to the variations in students' backgrounds, experiences, and perspectives, and the need to create instruction that is inclusive and responsive to these differences, which is a crucial aspect of ethnomathematics instruction as it helps instructors create learning environments that value and respect diversity.

Ethnomathematics is the study of the relationship between mathematics and culture, and involves examining how mathematical concepts and practices are shaped by cultural and historical contexts, which is the core concept of the Global Certificate Course in Ethnomathematics Instruction.

Formative Assessment involves using ongoing and informal assessments to monitor student learning and understanding, and to provide feedback and adjustments to instruction, which is an important aspect of ethnomathematics instruction as it helps instructors identify areas where students need additional support.

Globalization in mathematics education refers to the increasing interconnectedness of the world's cultures and economies, and the need to create instruction that is responsive to these global trends and challenges,

which is a key concept in ethnomathematics instruction as it helps instructors create learning environments that prepare students for an increasingly globalized world.

Inclusive Education involves creating learning environments that are accessible and supportive of all students, regardless of their backgrounds, abilities, or needs, and is a crucial aspect of ethnomathematics instruction as it helps instructors create equitable and just learning environments.

Indigenous Knowledge refers to the traditional and ancestral knowledge and practices of indigenous cultures, and involves recognizing and valuing the mathematical concepts and practices that are embedded in these knowledge systems, which is a key concept in ethnomathematics instruction as it helps instructors create instruction that is respectful and responsive to indigenous cultures.

Informal Education refers to the non-formal and experiential learning that occurs outside of the classroom, and involves recognizing the importance of out-of-school learning experiences in shaping students' understanding of mathematical concepts, which is an important aspect of ethnomathematics instruction as it helps instructors create learning environments that value and respect informal learning.

Intercultural Education involves creating learning environments that are responsive to the cultural diversity of students, and that promote understanding and appreciation of different cultures and perspectives, which is a crucial aspect of ethnomathematics instruction as it helps instructors create inclusive and supportive learning environments.

Language Support involves providing linguistic and literacy support to students who are non-native speakers of the dominant language of instruction, and is an important aspect of ethnomathematics instruction as it helps instructors create learning environments that are accessible and supportive of all students.

Mathematical Literacy refers to the ability to read, write, and communicate mathematical ideas and concepts, and involves creating instruction that promotes critical thinking and problem-solving skills, which is a key concept in ethnomathematics instruction as it helps instructors create learning environments that value and respect mathematical literacy.

Multicultural Education involves creating learning environments that are responsive to the cultural diversity of students, and that promote understanding and appreciation of different cultures and perspectives, which is a crucial aspect of ethnomathematics instruction as it helps instructors create inclusive and supportive learning environments.

Non-Formal Education refers to the structured and organized learning that occurs outside of the classroom, and involves recognizing the importance of out-of-school learning experiences in shaping students' understanding of mathematical concepts, which is an important aspect of ethnomathematics instruction as it helps instructors create learning environments that value and respect non-formal learning.

Numeracy refers to the ability to understand and work with numbers and quantities, and involves creating instruction that promotes critical thinking and problem-solving skills, which is a key concept in ethnomathematics instruction as it helps instructors create learning environments that value and respect numeracy.

Place-Based Education involves creating learning environments that are rooted in the local community and environment, and that promote understanding and appreciation of the cultural and ecological context of

the community, which is a crucial aspect of ethnomathematics instruction as it helps instructors create learning environments that are responsive to the local context.

Problem-Based Learning involves using real-world problems and scenarios to teach mathematical concepts and skills, and involves creating instruction that promotes critical thinking and problem-solving skills, which is a key concept in ethnomathematics instruction as it helps instructors create learning environments that are relevant and meaningful to students' lives.

Project-Based Learning involves using long-term and in-depth projects to teach mathematical concepts and skills, and involves creating instruction that promotes critical thinking and problem-solving skills, which is a crucial aspect of ethnomathematics instruction as it helps instructors create learning environments that are engaging and motivating for students.

Social Justice in mathematics education refers to the fair and equitable distribution of mathematical knowledge and resources, and involves creating instruction that promotes critical thinking and problem-solving skills, and that addresses issues of inequality and injustice in the mathematics classroom, which is a key concept in ethnomathematics instruction as it helps instructors create learning environments that are just and equitable.

Socio-Cultural Theory suggests that learning is a social and cultural process, and that instruction should be designed to take into account the socio-cultural context of the learners, which is a crucial aspect of ethnomathematics instruction as it helps instructors create learning environments that are responsive to the socio-cultural context of the students.

Summative Assessment involves using formal and standardized assessments to evaluate student learning and understanding, and to provide feedback and accountability for instruction, which is an important aspect of ethnomathematics instruction as it helps instructors measure the effectiveness of instruction and identify areas for improvement.

Technology Integration involves using digital and technological tools to support mathematics instruction, and involves creating instruction that promotes critical thinking and problem-solving skills, and that addresses issues of access and equity in the use of technology, which is a key concept in ethnomathematics instruction as it helps instructors create learning environments that are engaging and motivating for students.

Traditional Knowledge refers to the ancestral and traditional knowledge and practices of indigenous cultures, and involves recognizing and valuing the mathematical concepts and practices that are embedded in these knowledge systems, which is a crucial aspect of ethnomathematics instruction as it helps instructors create instruction that is respectful and responsive to indigenous cultures.

Visual Literacy refers to the ability to read and interpret visual images and representations, and involves creating instruction that promotes critical thinking and problem-solving skills, and that addresses issues of representation and interpretation in the mathematics classroom, which is a key concept in ethnomathematics instruction as it helps instructors create learning environments that value and respect visual literacy.

Western Mathematics refers to the dominant and traditional approach to mathematics, which is based on western cultural and philosophical perspectives, and involves recognizing the limitations and biases of this

approach, and promoting a more inclusive and diverse understanding of mathematical knowledge and practices, which is a crucial aspect of ethnomathematics instruction as it helps instructors create instruction that is respectful and responsive to diverse cultural perspectives.