Module 13

ACCOMPANYING PROSPECTIVE TEACHERS IN MAKING INTERCULTURAL EXPERIENCES
This Module is based on the work within the project Intercultural learning in mathematics and science initial teacher education (IncluSMe). Coordination: Prof. Dr. Katja Maaß, International Centre for STEM Education (ICSE) at the University of Education Freiburg, Germany. Partners: University of Nicosia, Cyprus; University of Hradec Králové, Czech Republic; University of Jaen, Spain; National and Kapodistrian University of Athens, Greece; Vilnius University, Lithuania; University of Malta, Malta; Utrecht University, Netherlands; Norwegian University of Science and Technology, Norway; Jönköping University, Sweden; Constantine the Philosopher University, Slovakia.

The project Intercultural learning in mathematics and science initial teacher education (IncluSMe) has received co-funding by the Erasmus+ programme of the European Union under grant no. 2016-1-DE01-KA203-002910. Neither the European Union/European Commission nor the project’s national funding agency DAAD are responsible for the content or liable for any losses or damage resulting of the use of these resources.

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General overview and aim

Module 13 will be offered to prospective teachers of mathematics and science prior to their field exchanges or stays abroad. Module aims to prepare the prospective teachers for intercultural teaching experiences, by equipping them with necessary knowledge, skills and values. In particular, this module will:

- Offer support to prospective teachers during preparation for practical work placements
- Help them to reflect on their own experiences and learn from the field exchange, including reflecting on their own attitudes, values and development of intercultural competences
- Accompany students’ field work as they analyze and implement the learned practices and reflect on them
- Equip students with methods for reflecting one’s own experiences during stays abroad or field work, including ethnographic field notes as a tool for analyzing classroom practice.

This module is part of:

- Personal dimension: values, attitudes and intercultural competences of prospective teachers

Relevant topics

In this module, theoretical knowledge on attitudes, values and beliefs will be related to student’s personal experiences and their needs for professional development. Topics relevant for this module are:

- explicit and implicit attitudes, beliefs and values,
- cultural differences and universalities, intercultural communication
- diversity in classrooms,
- intercultural education
- active listening and interviewing
- analysis of classroom practices with the use of ethnographic field notes and classroom observation protocols.
Learning Outcomes

Through this module the prospective teachers will:

- knowledge about culture and cultural diversity
- knowledge about psychology of attitudes, beliefs and values,
- familiarity with cultural differences in communication and cultural values,
- capability of reflecting on their own attitudes and preconceptions that might influence their interactions with diverse cultures,
- improved intercultural communication skills
- obtaining skills and tools to get to know pupils from different cultures and get an insight in their learning processes,
- familiarity with the method of ethnographic field notes which they can use during classroom observation,
- capability of reflecting on what influences their own perspectives on classroom practices,
- capability of reflecting on their own personal growth and professional development in the field of intercultural education.
Flowchart and Module plan

This module involves three sections which will be carried out through several activities. First section presents some theoretical background about attitudes, values and cultural differences and universalities, and offers the opportunities for students to reflect on their own attitudes, values and development of intercultural competences. Second section reflects on cultural differences in communication, teaches skills necessary for successful intercultural communication and getting to know pupils in culturally diverse classrooms. Third section introduces the method of ethnographic field notes which can be used in classroom observation during upcoming field work. Sections involve lectures, discussions in groups or pairs, and activities such as exercises illustrating cultural barriers or implicit attitudes. Optional readings are suggested for those further interested in the topics from the first and second section, and an obligatory homework reading on ethnographic studies and field notes are accompanying the third section, ideally as a preparation for the third section.

- Attitudes, values, beliefs and cultures; definitions, theories and reflection opportunities – 100 min
- Intercultural communication; active listening and interviewing – 100 min
- Ethnographic field notes – 70 min Homework + 30 min lecture
I. Attitudes, values, beliefs and cultural diversity; definitions, theories and self-reflection opportunities (90 min)

1.1. Giant Steps Activity, followed by discussion

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Giant Steps Activity will be used as a “warm up” activity and an introduction into the intercultural education challenges. It is supposed to make participants think about the barriers that pupils from diverse cultures face in education, but also to get an insight into own attitudes and expectations from those pupils.

This session contributes to the achievement of the following learning outcomes:
- Become able to reflect on their own attitudes and preconceptions that might influence their interactions with diverse cultures

1.2. Lecture and discussion on cultural diversity and culture

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After discussing barriers towards inclusive education in Activity 1.1., the teacher will introduce some information about global movements leading to greater cultural diversity in classrooms. Students will try to define culture and what it encompasses and the teacher will summarize the discussion by offering a definition that includes both objective and subjective aspect of culture. This will also serve as an introduction into the next topic about attitudes, beliefs and values.

This session contributes to the achievement of the following learning outcomes:
- Knowledge about culture and cultural diversity

1.3. Lecture and discussion on attitudes, values and beliefs

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Teacher will introduce definitions of attitudes, values and beliefs, and explain their psychological functions. Students will then try to identify some of their values and their connections to attitudes.

This session contributes to the achievement of the following learning outcomes:
- Knowledge about psychology of attitudes, beliefs and values
- Capability of reflecting on own attitudes and preconceptions that might influence interactions with diverse cultures
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<tr>
<th>1.4. Implicit Association test followed by short lecture and discussion</th>
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<tr>
<td>![Images]</td>
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<tr>
<td>This activity can be performed online by following the link. If that’s not possible then it can be simulated in the classroom as described in the worksheet and ppt. It is supposed to show that we most likely hold some negative implicit attitudes towards minority groups which might be visible in our behavior. Being aware that this can happen is the first and most important step in changing this so it is important to recognize it.</td>
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<th>1.5. Lecture and discussion about differences and universalities in cultural values</th>
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<td>Students will try to think of some cultural values that differ or are even conflicting between cultures. Teacher can offer some examples from the literature too. Students will discuss their previous interactions with individuals who hold different values from their own, and share experiences. After that, teacher will present a theory that synthesizes different cultural values to universal foundations, accompanied by optional readings on the topic. This activity is supposed to improve understanding of different cultural values and increase openness and tolerance towards diversity.</td>
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<th>1.6. Conclusion of the first session</th>
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<td>Teacher will summarize the first session together with the students, with a focus on practical implications.</td>
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<td>• capability of reflecting on their own personal growth and professional development in the field of intercultural education</td>
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II. Getting to know diversity: Intercultural communication skills, active listening & interviewing techniques (90 minutes)

2.1. Discussion and lecture on Intercultural differences in communication

Duration: 20 minutes

Students will try to think of some intercultural differences related to communication, and think about how they could be reflected in classrooms. Teacher will support their answers with additional examples if necessary. Together they will come up with ideas on how to prepare for intercultural communication.

This session contributes to the achievement of the following learning outcomes:
- Intercultural communication skills

2.2. Active listening skills, lecture and exercise

Duration: 30 minutes

Teacher will introduce the topic of active listening and present the main ideas, and techniques as well as benefits from it. Additional literature and a homework practice can be suggested so the students would try out the technique and reflect on it.

This session contributes to the achievement of the following learning outcomes:
- Intercultural communication skills
- Obtaining skills and tools to get to know pupils from different cultures and get an insight in their learning processes

2.3. Learning about pupils through interviews

Duration: 30 minutes

Based on materials from Downey & Cobbs (2007), an interviewing technique will be introduced which students can use later during their field experiences. Instructions can be found in ppt and worksheet, protocol (CSIP) necessary for the interview and reflection questions intended to be used after the interview are in the worksheet.

This session contributes to the achievement of the following learning outcomes:
- Obtaining skills and tools to get to know pupils from different cultures and get an insight in their learning processes
### 2.4. Conclusion of the second session and introduction to ethnographic field notes and related homework

**Duration: 10 minutes**

Teacher will summarize the second session together with the students, with a focus on practical implications. Homework (obligatory readings) for the third session will be introduced here.

This session contributes to the achievement of the following learning outcomes:
- Capability of reflecting on their own personal growth and professional development in the field of intercultural education

### 3. Ethnographic field notes (70 minutes homework + 75 minutes session)

#### 3.1. Lecture on ethnographic studies and field notes, exercise identifying own personal values, assumptions, biases

**Duration: 30 minutes**

Teacher will shortly describe the research method of ethnographic field notes. Students will then try to identify their own personal values, assumptions, and biases, that might influence their perception of classroom practices, as it is usually done at the outset of an ethnographic study. Students should be given opportunities to ask questions and clarify their understanding of this research method.

This session contributes to the achievement of the following learning outcomes:
- Familiarity with the method of ethnographic field notes which they can use during classroom observation,
- Capability of reflecting on what influences their own perspectives on classroom practices

#### 3.2. Abroad experiences: Challenges and how to overcome them.

**Duration: 20 minutes**

In this activity, students will work in groups of three or four and try to think of challenges they might face during their field exchange abroad, related both to their roles as foreigners, and as teachers to students of different culture. They will write them down and exchange them with other groups. Then they will try to come up with advice on how to avoid or solve the problems they identified, based on the contents of the module and their other knowledge and skills.
This session contributes to the achievement of the following learning outcomes:

- Capability of reflecting on their own personal growth and professional development in the field of intercultural education

3.3. Reflection on the module and learning

Discussion about the module as an opportunity for students to reflect on what they learned during the module think about their further development as culturally responsive teachers. This activity can also serve as an assessment of achieved learning goals, since it provides an opportunity to teachers to gain insight into what students learned throughout the module, if their perspectives on relevant topics changed and which learning experiences they found most valuable.

3.4. Overall conclusion and summer school introduction

Teacher will conclude by showing that contents of this module are a part of culturally responsive teaching qualities and introduce summer school content where pedagogical and subject knowledge, two other crucial components of culturally responsive teaching, will be developed.

This session contributes to the achievement of the following learning outcomes:

- Capability of reflecting on their own personal growth and professional development in the field of intercultural education
Materials and resources

Presentation (pptx): Accompanying prospective teachers in making intercultural experiences.


Access to computers for Implicit Association test

Worksheets

Granularity

- Simulating the IAT experiment (Activity 1.4.) shortly in the classroom could be faster than doing it online
- Skip Activity 1.5.
- If students are familiar with active listening skills, skip Activity 2.2.
- If students won’t have an opportunity to interview a pupil, skip Activity 2.3.
- Activity 3.1. related Ethnographic studies can be shorter if students did their readings at home. Time can be used to answer their questions, without the lecture.
References


Further readings


A study evaluating a field assignment for math pre-service teachers where they were trained to conduct a semi-structured interview with a student whose cultural background was different than their own. It includes examples and reflections on the procedure.


Reading for those further interested in moral psychology, cultural differences and universalities in values and morality.
Assessment

Discussions and reflections can be used as a basis for evaluating to what extent did the pre-service teachers develop the expected learning outcomes. The following assessment criteria can be applied:

- They show understanding of how culture influences daily life and education.
- They have basic knowledge about psychology of attitudes, beliefs and values and are capable of introspective reflection related to it.
- They show understanding of how cultural influences communication and values.
- They show awareness of how their own attitudes and preconceptions might influence their interactions with culturally diverse pupils.
- They actively listen to each other.
- They re-think previous positions after exploration and discussion.
- They feel confident about using the method of ethnographic field notes and other ways of getting an insight into pupils’ learning processes, and about their intercultural communication skills in general.
This worksheet is based on the work within the project Intercultural learning in mathematics and science initial teacher education (IncluSMe). Coordination: Prof. Dr. Katja Maaß, International Centre for STEM Education (ICSE) at the University of Education Freiburg, Germany. Partners: University of Nicosia, Cyprus; University of Hradec Králové, Czech Republic; University of Jaen, Spain; National and Kapodistrian University of Athens, Greece; Vilnius University, Lithuania; University of Malta, Malta; Utrecht University, Netherlands; Norwegian University of Science and Technology, Norway; Jönköping University, Sweden; Constantine the Philosopher University, Slovakia.

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### Activity 1.1: Giant Steps Activity

**Work in groups**

**30 min**

The whole group participates in the Giant Steps Activity

**Instructions for the teacher**

Photocopy the role cards and give one to each participant to read. Ask them to make a label showing their name and country of origin and to attach it to themselves. (Depending on the size of your group more than one person may have the same role).

Ask them to think about the role they got, who they are, where they live, how many are in their family, etc. Now ask them to stand in character at one end of the room, with their backs against the wall and use the full length of the room for moving forward.

Explain that you are going to call out statements. After each statement is read they must take a giant step, a baby step, or stay where they are, depending on what the statement means to them. Take a giant step if you can do it quite easily; take a baby step if you can only do it with difficulty; don’t move if you can’t do it at all.

Emphasize that the aim of the exercise is to try to experience what life is for their character—it is not about reaching the end first.

Now call out the first statement. Once everybody has responded, ask them to explain what they did and why. Choose more statements from the list, read them out, and allow participants to make their move. When all the statements have been read begin the debriefing.

**Role cards**

**RASHID:** You are a 13 year old refugee from Syria. Your parents have been killed and your uncle has brought you to Germany with his family. You are all waiting to be told by the Government whether you can stay. You cannot understand German and don’t really like to be in school. You are afraid that if you protest you will be sent back to Syria. You are Muslim.

**ANNA:** You live with your mother and sister in Ireland. Your favorite subjects are Physics and Chemistry. You would like to do these subjects for your final school exams to go to university but the subjects are not taught in the Girls Secondary School you attend.

**PAVEL:** Most of your life you have lived on a Gypsy/Traveler site with your family in a caravan in Eastern Europe. You have been to four primary schools, each in a different town. When you turned twelve you stopped going to school. Travelers have their own unique language. You have little money and no skills to earn more. You experience discrimination because of your background all the time and getting work for your family is very difficult. For the last two months your family lives in Sweden. You are now back in school.

**LIN:** You live in Hong Kong where your mother has many business interests. She believes that the handing back of Hong Kong to China has made life a bit more difficult, although you know you are much better off than many people in China.
PAUL: You are 10 years old and live in Sweden. You love mathematical problem solving and have several books with logical problems that you work with at home. At school, you are far ahead in math books and your teacher provides you with additional information when you are finished with the week's goals. Your parents have both higher education degrees from their home country. Your father has for 11 years worked with other than what he is trained. Your teacher is communicating with your parents and is informing them about mathematics clubs and competitions in mathematics. Your parents did not master the Swedish language fully but can make themselves understood. You also have two younger siblings.

HANNAH: You live with your parents, your brother and sister in Poland. Your house is big, and you all have your own bedrooms which you think is great because you have lots of study to do for your exams. You are planning to go to university next year where you would like to study Computer Science. Each of you have all the latest technology at home (Computers, Mobiles and iPads). You are very happy that Poland is part of the EU because now you have greater freedom and access to more goods and consumer services.

KANDESHIE: You live in Namibia and have just moved into a new modern house in the capital city Windhoek. Your father has been promoted and now has a good job with the government. He is even talking about sending you to a new school in South Africa where you will get a much better education.

MAYA: You are a fifteen year old living in the Bronx area of New York. Your Mom is a single parent and tries to make ends meet by cleaning houses and living on welfare. Your neighborhood is pretty dangerous, and you don’t feel safe at night. You try to work hard at school, but it is hard when the school is run-down and overcrowded. You often experience racism (as your family is originally from Mexico) but the authorities don’t take this very seriously.

ANGUS: You live on a farm with your family in the Scottish Highlands. The weather is harsh, and the farm work is difficult, but you really like it. Your grandparents live with you and you enjoy listening to your grandfather’s stories about Scotland. Times are hard, and your parents always seem to be worried about money and basic resources. There is even talk of the family leaving the farm and moving to the city, so your parents can find work. There is no broadband or internet access in this remote part of the country.

Statements
I enjoy going to school.
I learn a lot in school.
I develop good study techniques that will help me when studies get harder.
I feel accepted by my fellow pupils.
My teacher helps me deepen my knowledge.
I could go to university.
I can choose what subjects to study.
My family helps me in my learning.
I’m proud of my knowledge.
My school encourages those who do well in school, in sports, languages as well as in mathematics and science.
I respect my teachers.
My friends encourage me when I do well in mathematics.
My teacher creates a good atmosphere where we are allowed to fail as well as succeed.
I can speak my own language at school.
I could go to university.
I can play games or sports or rest every day.
I can speak out and protest about things that affect me.
I can access information which I need through freedom of information rights or the internet. When I am older I will get a good job

**Discussion questions**

Who got furthest along? Why?

How did you feel when you took a giant step /couldn’t move? Were you happy /angry? Why?

How did you feel when others were moving at a faster/slower pace than you?

What are the basic human rights/needs we all share?

What are the main obstacles to development that people face in their lives?

Why do you think such differences exist in some countries and not in others?

Choose one character. Discuss what could be done so that he could fully enjoy his rights.
I. Attitudes, beliefs, values, and cultural diversity

**Activity 1.2: Cultural diversity and Culture**

**Work in pairs**

Teacher introduces the topic of cultural diversity in classrooms, and students work in pairs to try to define what culture is. Teacher then offers one of the definitions.

**Cultural diversity**

- Increase in global movements of people from undeveloped or war-affected countries to developed, OECD countries
- Challenge of securing inclusive education for children with diverse cultural backgrounds
- Cultural diversity, cultural pluralities, multiculturalism
- What is culture? Discuss.

**Summary of discussion and the definition of culture**

- Rich and complex term, describes and explains a broad range of activities, behaviors, events, and structures in our lives
- Abstract explanatory concept - concrete and observable differences in human behavior such as actions, thoughts, rituals, and traditions are the manifestations of culture, but we can’t see the culture itself.
- The concept of culture describes similarities among individuals within a group and differences between groups.
- Objective aspects of culture: food, clothing, tools, etc.
- Subjective aspects of culture: behaviors, beliefs, attitudes, values, etc.

- “Culture is a dynamic system of rules, explicit and implicit, established by groups in order to ensure their survival, involving attitudes, values, beliefs, norms, and behaviors, shared by a group but harbored differently by each specific unit within the group, communicated across generations, relatively stable but with the potential to change across time.” (Matsumoto, & Juang, 2003, pp. 10).
### I. Attitudes, beliefs, values, and cultural diversity

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<td>Work in pairs</td>
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Teacher will offer definitions of attitudes, values and beliefs, and explain their psychological functions. Students will then try to identify some of their values and their connections to attitudes.

- **Belief** - an idea a person holds true; based on own experience, acceptance of cultural and societal norms or other external sources
- **Value** - stable long-lasting beliefs about what is important to a person, higher order concept – offers a structure for organization of attitudes
- **Attitude** - stable, positive or negative evaluation of people, objects or ideas; has a cognitive, affective and behavioral component.
- **Why do we need values and attitudes?** (Fazio & Olson, 2003)
  - Knowledge function - need for structure, categorization, consistency and predictability
  - Value expressive - Self-expression and identification with others
  - Utilitarian - maximizing award and minimizing punishment (developing attitudes that help us)
  - Ego-defense – explaining own negative feelings, protecting the ‘self’
- **Think about your values and how they are connected with attitudes. Discuss in pairs.**
I. Attitudes, beliefs, values, and cultural diversity

**Activity 1.4: Implicit Association Test**

**Work in group** 20 minutes

Use this link to approach the online IAT:

[https://implicit.harvard.edu/implicit/takeatest.html](https://implicit.harvard.edu/implicit/takeatest.html)

OR

Simulate the experiment in the classroom

**First instruction:**

1. Hold both of your hands above the desk. Read a list of words including positive and negative words and Western and Muslim names (on ppt). Tap the desk with your left hand after reading a negative word or a Western sounding name. Tap the desk with your right hand after reading a positive word or a Muslim sounding name.


**Second instruction:**

2. Hold both of your hands above the desk. Read a list of words including positive and negative words and Western and Muslim names (on ppt). Tap the desk with your left hand after reading a negative word or a Muslim sounding name. Tap the desk with your right hand after reading a positive word or a Western sounding name.


**Discuss the results, talk about the development of implicit attitudes and solutions.**

- In group – out group effects
- Socialization effects
- Media effects
- The solution?
- Schemas can change over time but slowly

Becoming aware of the implicit biases we hold; keeping them in mind when interacting with cultural minorities → keeping them ‘in check’
I. Attitudes, beliefs, values, and cultural diversity

**Activity 1.5: Cultural values – differences and universalities**

*Work in group*  
*10 mins*

**Discussion on differences and universalities in cultural values**

**Instruction:**
Think about cultural values, including moral values, traditional or family values that are normative or desirable in some, and controversial in other cultures.

**Teacher can complement answers with examples from Shweder (1994):**
- women (not) being allowed to work, atheism, idol worship, divorce, arranged marriage, alcohol consumption, meat eating, medical inoculations, sexual abstinence, abortion, corporal punishment...

**Discuss.** Did you have contact with people (even from the same culture) with whom you disagreed on some of these topics? How are a dialogue and tolerance achieved in such cases?

Teacher can present a theory by Graham et al. (2013), that synthesizes different cultural values to universal foundations, accompanied by optional readings on the topic. This activity is supposed to improve understanding of different cultural values and increase openness and tolerance towards diversity even when it comes to matters we strongly care about.

**Activity 1.6: Conclusion of the first session**

*Work in group*  
*10 minutes*

**Discuss with students what were the main insights gained from this session.**
Module 13
Accompanying prospective teachers in making intercultural experiences

II. Getting to know diversity: Intercultural communication skills, active listening & interviewing techniques

Activity 2.1: Intercultural differences in communication

Work in groups 20 minutes

After analyzing intercultural differences related to communication, students will try to come up with ideas on how to prepare for intercultural communication.

Some examples of cultural differences related to communication:
- Conflict avoidance, gender roles, age roles, value of individual self-expression vs. collective good, power of authority, appreciation for verbal nuances vs. direct dialogue...
- Speaking up in class, authority of the teacher...

Teacher will emphasize that although it is important to have an understanding of another’s cultural tendencies, we should be careful not to stereotype.
- Not everyone from the same culture acts the same – individual differences among people from the same culture.

Think about what can you do better prepare for intercultural communication? (both during traveling abroad and when interacting with cultural minorities in your country)
- Get to know the communicational customs and ‘rules’ before interacting with a new culture
- Ask about the customs, show interest

Activity 2.2: Active listening skills

Work in pairs 30 minutes

Teacher will hold a lecture on active listening, and students will try it out in pairs. They will be advised to try it again in their free time and reflect on it.

Lecture notes:
Active listening is:
Characterized by asking sub questions and repeating what the person said
Involves focus and concentration
Both skills and attitudes are important (genuine interest, care, openness, nonjudgmental attitude)
Enables understanding the person we are talking to, without judging or blocking the message
Reciprocal process - other side should feel understood

Active listening involves:
- paying attention to the person we talk to, both on the content and the way something is said
- Interpretation – how to we ‘translate’ or interpret what is just said
- Memorizing what we heard, so it can be applied later if needed
Asking questions, paraphrasing and reflecting on what was said

Questions can be used for
Researching, mostly in the beginning (ex. Tell me more about it..)
Making sure we understood well (ex. What does this mean to you...)
Encouraging an action (ex. What do you think you can do about it?, How do you think I could help you?...)
Paraphrasing
Shortly repeating the content of what was said
To avoid misunderstandings and subjective interpretations
Ex. ‘So if I understood well…’, ‘What you are trying to say is…’
Reflecting
Shortly say how we experienced what we heard
Show we are aware of non-verbal cues
Reflect on emotional state

II. Getting to know diversity: Intercultural communication skills, active listening & interviewing techniques

Activity 2.3: Learning about pupils through interviews

Lecture & Reading 30 minutes

Based on materials from Downey & Cobbs (2007), an interviewing technique will be introduced which students can use later during their field experiences.

Discuss about teacher’s focus on teaching and focus on learning. Why is it important to notice the difference? Introduce the interviewing method.

- An opportunity to truly hear students’ voices
- Building a stronger rapport with students
- Insight into children’s thinking and struggles

Instructions for students
Find a student (with teacher approval/guidance) that appears to need extra one-on-one help.
Get to know this student, and his or her background and family situation.
Tutor this student and help him or her learn a math/science concept.
Find different ways to present this concept to the learner
Try to meet with this student at least three separate times, keeping a journal after each meeting.
Using the CSIP (Downey & Cobbs, 2007) and active listening techniques, interview your student!

CSIP - The Constructed situation Interview Protocol (Downey & Cobbs, 2007, pp.403)
I want to tell you a story about two boys named Tony and Bill. This is Tony and this is Bill. They are best friends and they are about the same age as you. They live near each other in the same part of town and they have lots of fun hanging out and playing together. Both boys go to the same school and last year both boys did not get very good grades in math. But this year they are in different classes. And here’s the interesting part. This year Tony is getting good grades in math and he likes it more. But Bill is not.

**Interview Questions:**
Why do you think there is a difference between Tony and Bill? O.K. Let’s talk some more about Tony.
Why do you think Tony is getting good grades in math? What helps Tony to get good grades? How does that help Tony? Who helps Tony to get good grades? What do they do? How does it help Tony?
O.K. Now let’s talk about Bill.
Why is Bill not getting good grades in math? If Bill was going to get good grades, what could he/she do? How would that help? Who else could help Bill? What could they do? How would that help?

**Guided Reflection Questions – after the interview (adapted from Downey & Cobbs, 2007):**
What did you learn about children that will help you be a more effective teacher?
What did you learn about teachers that will help you be more effective in the mathematics classroom?
What did you learn about yourself that will help you be a more effective mathematics teacher?
What changes, if any, did you experience in your beliefs about children from diverse backgrounds?
# II. Getting to know diversity: Intercultural communication skills, active listening & interviewing techniques

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<th>Activity 2.4: Conclusion of the second session</th>
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</thead>
<tbody>
<tr>
<td>Work in group</td>
</tr>
</tbody>
</table>

Teacher will summarize the second session together with the students, with a focus on practical implications. Homework (obligatory readings) for the third session will be introduced here.

**Homework:**
III. Ethnographic field notes

<table>
<thead>
<tr>
<th>Activity 3.1: Ethnographic study – Field notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work in groups 30 minutes</td>
</tr>
</tbody>
</table>

**Lecture on ethnographic field notes and practice.**
After reading the materials on ethnographic field notes students will be given a short overview of the method and have an opportunity to ask questions and further clarify their understanding. Students will then try to identify own personal values, assumptions, and biases, that might influence their perception of classroom practices, as it is usually done at the outset of an ethnographic study. Even though they won’t be performing the whole study, this practice is suitable opportunity for self-reflection.

**Instruction for the practice:**
School is a place where many professions meet. Teachers, pedagogues, psychologist and administrative staff can focus on different aspects of classroom life and have a different outlook on the same situation. Pupils and their parents have different perspectives too. Think about what influences your perspective of the classroom. Discuss in small groups.

**Things to consider in this practice:**
Previous education, professional background, knowledge on culturally relevant education, familiarity with the context, and other relevant social roles, experiences and knowledge...

III. Ethnographic field notes

<table>
<thead>
<tr>
<th>Activity 3.2: Abroad experiences: Challenges and how to overcome them</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work in groups 20 minutes</td>
</tr>
</tbody>
</table>

Students will be working in small groups of three or four. They will be handed a big paper with a vertical line on the middle. They will have to think of challenges they might face living abroad, related to their roles as foreigners in a country, as foreign students and as teachers to students from different culture. They will write them down on the left side of the paper and when finished they will exchange their ideas with other groups, so that everyone collects all the potential challenges. Then they will try to come up with advice on how to avoid or solve the problems they identified, based on the contents of the module and their previous knowledge and skills and write that down on the right side of the paper. Results can then be discussed.
III. Ethnographic field notes

**Activity 3.3: Reflection on the module and learning**

**Work in groups | 15 minutes**

Students will discuss about the module, reflect on what they learned and think about their further development as culturally responsive teachers. Some potential guiding questions for the reflection are offered in the power point presentation.

- What did you learn?
- What did you already know?
- What was the most valuable content of this module?
- What more do you still need to learn to be more culturally responsive as a teacher?

This group discussion can serve as a sort of assessment, since teachers can gain insight into what students found valuable about the module and how did the module influence their learning and interest in culturally responsive teaching.
III. Ethnographic field notes

**Activity 3.4: Overall conclusion and summer school introduction**

**Work in group | 10 minutes**

Discussion about what is learned in the module will take place. Teacher will conclude by showing that contents of this module are a part of culturally responsive teaching qualities.

Then the summer school contents will be presented. Summer schools will focus on developing pedagogical and subject knowledge, other crucial components of culturally responsive teaching.

**Prague 2018 summer school:**
- O5 “Different perspectives on current ecological problems”
- O4 “Socioscientific issues (SSI)”
- O11 “Intercultural science learning outside of school”
- O9 “Relevance of language in science education”
- O12 “Assessment in mathematics and science in multicultural contexts”.

**Vilnius/Druskininkai 2019 summer school:**
- O3 “Different cultures – different approaches to reasoning and algorithms in mathematics”
- O2 “Culture-related contexts for mathematics and science”
- O10 “Intercultural mathematics learning outside of school”
- O7 “Dealing with deficiencies and excellency in the mathematics proficiency of immigrant pupils”
ACCOMPANYING PROSPECTIVE TEACHERS IN MAKING INTERCULTURAL EXPERIENCES

Module 13
Aims

• Becoming aware of and reflecting on own attitudes, beliefs, values, and development of intercultural competencies
• Gaining skills and tools to get to know students in diverse classrooms
• Learning about ethographic field notes as a mean for classroom observation
• Promote learning through the cycles of analysis, implementation and reflection
Overview of the module

• Part 1 - 100 min
  • Attitudes, beliefs, values, cultural diversity
  • Optional readings

• Part 2 - 100 min
  • Dealing with diversity in classroom
  • Getting to know your students
  • Optional homework task

• Part 3 - 70 + 60 min
  • Obligatory reading as a preparation
  • Ethnographic field notes lecture
I. ATTITUDES, BELIEFS, VALUES, AND CULTURAL DIVERSITY

Theoretical background and self-reflection
1.1. Giant Steps Activity.

- Read the role card you got.
- Think about who you are, where you live, how many are in your family, etc.
- Stand in character at one end of the room, with your back against the wall and use the full length of the room.
- Some statements will be read.
- Take a giant step if you can do it quite easily; Take a baby step if you can only do it with difficulty. Don’t move if you can’t do it at all.
- The aim of the exercise is to try to experience what life is for your character—it is not about reaching the end first.
1.1. Giant Steps Activity. Discussion.

- Who got furthest along? Why?
- How did you feel when you took a giant step / couldn’t move? Were you happy / angry? Why?
- How did you feel when others were moving at a faster/slower pace than you?
- What are the basic human rights/needs we all share?
- What are the main obstacles to development that people face in their lives?
- Why do you think such differences exist in some countries and not in others?
- Choose one character. Discuss what could be done so that he could fully enjoy his rights.
1.2. Cultural diversity

• Increase in global movements of people from undeveloped or war-affected countries to developed, OECD countries
• Challenge of securing inclusive education for children with diverse cultural backgrounds
• Cultural diversity, cultural pluralities, multiculturalism
• What is culture? Discuss.
1.2. Culture
(Matsumoto, & Juang, 2003)

- Rich and complex term, describes and explains a broad range of activities, behaviors, events, and structures in our lives.

- Abstract explanatory concept - concrete and observable differences in human behavior such as actions, thoughts, rituals, and traditions are the manifestations of culture, but we can not see the culture itself.

- The concept of culture describes similarities among individuals within a group and differences between groups.
1.2. Culture
(Matsumoto, & Juang, 2003)

- Objective aspects of culture: food, clothing, tools, etc.

- Subjective aspects of culture: behaviors, beliefs, attitudes, values, etc.
  - “Culture is a dynamic system of rules, explicit and implicit, established by groups in order to ensure their survival, involving attitudes, values, beliefs, norms, and behaviors, shared by a group but harbored differently by each specific unit within the group, communicated across generations, relatively stable but with the potential to change across time.” (Matsumoto, & Juang, 2003, pp. 10).
1.3. Defining beliefs, values and attitudes.

• Belief - an idea a person holds true; based on own experience, acceptance of cultural and societal norms or other external sources

• Value - stable long-lasting beliefs about what is important to a person, higher order concept – offers a structure for organization of attitudes

• Attitude - stable, positive or negative evaluation of people, objects or ideas; has a cognitive, affective and behavioral component.
1.3. Attitudes, values and beliefs
(Fazio & Olson, 2003)

- Why do we need values and attitudes?
  - Knowledge function - need for structure, categorization, consistency and predictability
  - Value expressive - Self-expression and identification with others
  - Utilitarian - maximizing award and minimizing punishment (developing attitudes that help us)
  - Ego-defense – explaining own negative feelings, protecting the ‘self’

- Think about your values and how they are connected with attitudes. Discuss in pairs.

5 min
1.4. Implicit Association Test

https://implicit.harvard.edu/implicit/takeatest.html

OR

Simulate the experiment in the classroom
1.4. Implicit Association Test

1. Hold both of your hands above the desk. Read a list of words including positive and negative words and Western and Muslim names.

Tap the desk with your left hand after reading a negative word or a Western sounding name. Tap the desk with your right hand after reading a positive word or a Muslim sounding name.
## 1.4. Implicit Association Test – Reading list

<table>
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<td>Robert</td>
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<td>Ashraf</td>
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<td>Anthony</td>
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<td>Philippe</td>
<td>Matthias</td>
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<tr>
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<td>Celebrate</td>
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<tr>
<td>Michael</td>
<td>Habib</td>
<td>Peter</td>
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</table>
1.4. Implicit Association Test

2. Hold both of your hands above the desk. Read a list of words including positive and negative words and Western and Muslim names. Tap the desk with your left hand after reading a negative word or a Muslim sounding name. Tap the desk with your right hand after reading a positive word or a Western sounding name.
### 1.4. Implicit Association – Reading list

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</table>
1.4. Implicit attitudes

- Preference for ‘in group’ over ‘out group’
- Socialization effects and media – negative portrayals
- Read more at:
  https://implicit.harvard.edu/implicit/faqs.html
1.4. Implicit attitudes

- The solution?
- Schemas can change over time but slowly
- Becoming aware of the implicit biases we hold; keeping them in mind when interacting with cultural minorities → keeping them ‘in check’
1.5. Cultural values - differences

- Think about cultural values, including moral values, traditional or family values that are normative or desirable in some, and controversial in other cultures.
- Examples from Shweder (1994):
  - women (not) being allowed to work, atheism, idol worship, divorce, arranged marriage, alcohol consumption, meat eating, medical inoculations, sexual abstinence, abortion, corporal punishment…
- Discuss. Did you have contact with people (even from the same culture) with whom you disagreed on some of these topics? How are a dialogue and tolerance achieved in such cases?
1.5. Cultural values - universalities

• Attitudes might differ but there are no cultures that don’t care!

• Universal moral foundations (Graham et al., 2013)
  • Care/harm
  • Fairness/cheating
  • Loyalty/betrayal
  • Authority/subversion
  • Sanctity/degradation

• Reading for those further interested:

- What to bring (when leaving) home?
  - Recognize own attitudes, beliefs and values and where they come from
  - Try to understand different outlooks before judging
II. GETTING TO KNOW DIVERSITY

Intercultural communication skills, active listening & interviewing techniques
2.1. Intercultural differences in communication

• Think of some cultural differences related to communication.
  • Conflict avoidance, gender roles, age roles, value of individual self-expression vs. collective good, power of authority, appreciation for verbal nuances vs. direct dialogue…

• Which of these aspects could be visible in classroom? Discuss.
  • Speaking up in class, authority of the teacher…
2.1. Intercultural differences in communication

• It is important to have an understanding of another’s cultural tendencies, but be careful not to stereotype!
  • Not everyone from the same culture acts the same – individual differences among people from the same culture

• Think about what can you do better prepare for intercultural communication? (both during traveling abroad and when interacting with cultural minorities in your country)
  • Get to know the communicational customs and ‘rules’ before interacting with a new culture
  • Ask about the customs, show interest…
2.2. Active listening

- Characterized by asking subquestions and repeating what the person said
- Involves focus and concentration
- Both skills and attitudes are important (genuine interest, care, openness, nonjudgmental attitude)

- It involves
  - paying attention to the person we talk to, both on the content and the way something is said
  - Interpretation – how do we ‘translate’ or interpret what is just said
  - Memorizing what we heard, so it can be applied later if needed

- Enables understanding the person we are talking to, without judging or blocking the message
- Reciprocal process - other side should feel understood
2.2. Active listening

• Questions can be used for
  • Researching, mostly in the beginning (ex. Tell me more about it..)
  • Making sure we understood well (ex. What does this mean to you…)
  • Encouraging an action (ex. What do you think you can do about it?, How do you think I could help you?…)

• Paraphrasing
  • Shortly repeating the content of what was said
  • To avoid misunderstandings and subjective interpretations
  • Ex. ‘So if I understood well…’, ‘What you are trying to say is…’

• Reflecting
  • Shortly say how we experienced what we heard
  • Show we are aware of non-verbal cues
  • Reflect on emotional state
2.3. Learning about pupils through interviews


- Find a student (with teacher approval/guidance) that appears to need extra one-on-one help. Tutor this student and get to know his background and family situation. Help him or her learn a math/science concept.

- Using the CSIP (Downey & Cobbs, 2007) and active listening techniques, interview your student!

- An opportunity to truly hear students’ voices
- Building a stronger rapport with students
- Insight into children’s thinking and struggles
2.3. Learning about pupils through interviews


- Guided Reflection Questions:
  - What did you learn about children that will help you be a more effective teacher?
  - What did you learn about teachers that will help you be more effective in the mathematics classroom?
  - What did you learn about yourself that will help you be a more effective mathematics teacher?
  - What changes, if any, did you experience in your beliefs about children from diverse backgrounds?
2.4. Part 2. Conclusion.

• What to bring (when leaving) home?
  • Be prepared for differences in communication and values when interacting with individuals from a different culture, but don’t stereotype – not everyone within a culture is the same
  • Show interest, ask and listen
  • Learn
  • Repeat
2.4. Ethnographic study – Field notes

• Homework readings:

Example of observation in culturally responsive classroom:
III. ETHNOGRAPHIC FIELD NOTES
3.1 Ethnographic study – Field notes


- Study design emerged from the field of anthropology
- Aims to obtain a holistic picture of the subject of the study
- Researcher is the primary data collection instrument in qualitative studies
- The emphasis is on portraying the everyday experiences of individuals by observing or interviewing them and relevant others
- Researcher needs to identify own personal values, assumptions, biases at the outset of the study!
3.1. Ethnographic study – Identifying own personal values, assumptions, biases. Discussion.

• School is a place where many professions meet. Teachers, pedagogues, psychologist and administrative staff can focus on different aspects of classroom life and have a different outlook on the same situation. Pupils and their parents have different perspectives too.

• Think about what influences your perspective of the classroom. Discuss in small groups. 15 min

• Previous education, professional background, knowledge on culturally relevant education, familiarity with the context, and other relevant social roles, experiences and knowledge...
3.1. Ethnographic study – How to take field notes

• Describe where the study will take place, and who will be observed/interviewed, what will be the focus of the study?

• “Particular attention will be paid to… “

• Think about ethical considerations – do participants know they are observed? Did they consent to it? Are they informed about how the data will be treated and/or reported? Informant anonymity/confidentiality.
3.1. Ethnographic study – How to take field notes

• Describe data collection
  • when does it happen, how often, time intervals
  • and how – written notes, audio or video taped, transcripts..

• Describe data analysis - how were the categories identified, describe the process of categorizing

• Ways to ensure internal validity: triangulation – multiple sources of data (observations, interviews, document analysis), member checking, long-term repeated observations, peer examination, participatory modes of research, clarification of researcher bias.

• Present the findings in a descriptive, narrative form which communicates a holistic picture.
3.2. Discussion. Abroad experiences: Challenges and how to overcome them.

- Work in groups of three or four
- Try to think of challenges you might face during the field exchange abroad, related both to being foreigners in a country and to being teachers to students of different culture
- Write them down and exchange with other groups
- Come up with advice on how to avoid or solve the identified problems

20 min
3.3. Discussion and reflection

- Reflect:
- What did you learn?
- What did you already know?
- What was the most valuable content of this module?
- What more do you still need to learn to be more culturally responsive as a teacher?
- …
3.4. Overall conclusion and summer school introduction

Culturally responsive teaching

- Awareness of self and social circumstances
- Teacher’s beliefs, values and attitudes
- Subject knowledge & Pedagogical knowledge
3.4. Overall conclusion and summer school introduction

- Be aware of your values and preconceptions during classroom observation and teaching

- Culturally relevant education encompases teacher’s beliefs, values and attitudes, which reflect on teaching methods and practices

- Awareness of self and of social circumstances is an important component of culturally relevant education

- Summer school - Specific knowledge and skills about culturally responsive teaching, including subject knowledge and pedagogical knowledge
3.4. Prague 2018 summer school

- O5 “Different perspectives on current ecological problems”
- O4 “Socioscientific issues (SSI)”
- O11 “Intercultural science learning outside of school”
- O9 “Relevance of language in science education”
- O12 “Assessment in mathematics and science in multicultural contexts”
3.4. Vilnius/Druskininkai 2019 summer school

- O3 “Different cultures – different approaches to reasoning and algorithms in mathematics”
- O2 “Culture-related contexts for mathematics and science”
- O10 “Intercultural mathematics learning outside of school”
- O7 “Dealing with deficiencies and excellency in the mathematics proficiency of immigrant pupils”
This presentation is based on the work within the project Intercultural learning in mathematics and science initial teacher education (IncluSMe). Coordination: Prof. Dr. Katja Maaß, International Centre for STEM Education (ICSE) at the University of Education Freiburg, Germany. Partners: University of Nicosia, Cyprus; University of Hradec Králové, Czech Republic; University of Jaen, Spain; National and Kapodistrian University of Athens, Greece; Vilnius University, Lithuania; University of Malta, Malta; Utrecht University, Netherlands; Norwegian University of Science and Technology, Norway; Jönköping University, Sweden; Constantine the Philosopher University, Slovakia.

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