



SKATE Project

Intellectual Output 3: Toolkit

O3/A2 Definition Learning Programmes

Module 2: Technology: Using ICT with Early Learners





1 Session 1

1.1 Competenc(y)ies

Code	Description	Level
A.6	To be aware of the importance and the benefits of ICT/AT for all learners and especially learners with disabilities	B
C.2	To recognize basic common ICT/AT solutions for particular children's needs	B

1.2 Learning outcomes

Code	Learning outcomes	Level
A.6	<ul style="list-style-type: none">- To list ICT that can support all learners and especially learners with disabilities- To identify the benefits of ICT- To be aware of barriers due to (physical) disabilities- To explain how ICT can remove particular barriers due to (physical) disabilities- To be aware of the importance and the benefits of ICT/AT for all learners and especially learners with disabilities	B
C.2	<ul style="list-style-type: none">- To recognize basic common ICT solutions for particular children's needs	B

1.3 Teaching method(s)- activities

- Group discussion
- Brainstorm
- Examination of real-life examples using case studies

1.4 Description of the session

- Introduction by the trainer: section 1 in M2_S1.docx. Followed with a group discussion on ICT that the educators already use in ECEC and brainstorm on ICT that can be used in ECEC.
- Presentation (M2_S1_TypesICT.pptx) by the trainer of different types of ICT that can be used in ECEC and if possible some real ICT tools to be showed.
- Brainstorm on importance and benefits of ICT for both educators and children in ECEC. Followed by a summarise of the mentioned importance and benefits of ICT and supplement with research findings by the trainer: section 2 in M2_S1.docx.
- Brainstorm on which difficulties children with disabilities may face in ECEC, based on the experiences of the educators.
- The trainer shows videos of ICT use with a child with disabilities and the educators (in small groups) needs to examine the real-life examples using the template M2_S1_Template.docx.
- Presentation and discussion of the outcomes of the examination of the real-life example of the different small groups.
- Feedback/Evaluation of the session, using group questioning, and wrap-up of the session by the trainer.



1.5 Materials/means

Materials and Means are suggested resources that can be used, adopted, adapted or just consulted for the purposes of this Module and Session. Materials are expected to be localized or substituted by localized and contextualised resources.

- M2_S1.docx
- M2_S1_TypesICT.pptx
- Real ICT tools to show the educators
- M2_S1_Template.docx
- M2_S1_Video_1
- M2_S1_Video_2
- M2_S1_Video_3
- M2_S1_GroupQ&A.docx

1.6 Feedback

- The presentation and discussion outcomes of the real-life examples already gives a lot of feedback on the realisation of the learning outcomes (peer feedback).
- Group questioning (M2_S1_GroupQ&A.docx) at the end of the session: one educator starts to answer the question and the other educators can supplement. The trainer can visualise the answers on the black/whiteboard in front of the classroom.



2 Session 2

2.1 Competenc(y)ies

Code	Description	Level
A.13	To design curriculum and lessons that promote awareness on ICT/AT and diversity to all learners	A

2.2 Learning outcomes

Code	Learning outcomes	Level
A.13	To design curriculum and lessons that promote awareness on ICT/AT and diversity to all learners	A

2.3 Teaching method(s)- activities

- Brainstorm
- Collaborative learning in small groups

2.4 Description of the session

- The trainer introduces the session by telling the educators that they will work in small groups to design lessons that promote awareness on ICT in ECEC and diversity to all learners.
- To start the session the whole group will brainstorm on lessons/activities/materials that can be developed to promote awareness on ICT in ECEC and diversity to all learners:
What activities/materials/lessons can be used to raise awareness on the added value of ICT in ECEC in relation to diversity to all learners?
- Educators are divided into small groups in which they develop one of the ideas from the brainstorm into a lesson/activity/material that promote awareness on ICT in ECEC and diversity to all learners.
- The small groups of educators present their developed lesson/activity/material to the group and the results are discussed (self-reflection and peer feedback).
- Wrap-up of the session by the trainer.

2.5 Materials/means

- Computers/laptops/tablets that can be used by the educators to search and create materials for lessons/activities that promote awareness on ICT and diversity to all learners.

2.6 Feedback

Self-reflection and peer feedback.



3 Session 3

3.1 Competenc(y)ies

Code	Description	Level
A.15	To validate the appropriateness of the ICT/AT used by the learners	A

3.2 Learning outcomes

Code	Learning outcomes	Level
A.15	<ul style="list-style-type: none">- To evaluate the ICT tools- To use existing evaluation tools	A

3.3 Teaching method(s)- activities

- Flipped classroom
 - o Individual reading at home
 - o Experiential learning in small groups (collaborative learning)

3.4 Description of the session

- The educators go through document M2_S3_EvaluationICT.docx at home and independently look at the various existing evaluation tools listed in the appendices of document M2_S3_EvaluationICT.docx.
- During the session the educators are divided in small groups in which they will review one app, one educational computer software and/or one IoTToy by use of an evaluation tool for each type of technology. A list of free apps, educational computer software and IoTToys is provided by document M2_S3_ListTechnology.docx. The small groups of educators can evaluate an app, educational computer software and IoTToy from the list or technologies that they already use or wants to use in their classroom.
- The small groups of educators present their evaluations to the other groups by the use of the Jigsaw method and the results are discussed (peer feedback).
- Wrap-up of the session by the trainer.

3.5 Materials/means

Materials and Means are suggested resources that can be used, adopted, adapted or just consulted for the purposes of this Module and Session. Materials are expected to be localized or substituted by localized and contextualised resources.

- M2_S3_EvaluationICT.docx
- M2_S3_ListTechnology.docx

3.6 Feedback

Peer feedback.



4 Session 4

4.1 Competenc(y)ies

Code	Description	Level
B.3	To encourage role-playing with ICT - AT solutions for all learners	B
B.4	To provide positive role models of using ICT/AT solutions	B
B.5	To consider provision of alternative options through ICT/AT for learning, language, motor and sensory needs of all learners	B
B.7	To provide opportunities of familiarizing with ICT/AT solutions for all learners	B

4.2 Learning outcomes

Code	Learning outcomes	Level
B.3	- to explain how to integrate ICT in a role play	B
B.4	- to acknowledge positive role models of using ICT solutions - to describe positive role models of using ICT solutions - To demonstrate good use of ICT	B
B.5	- To acknowledge the barriers/needs of the child with disability - To identify ICT solutions that can be used for particular learning, language, motor and sensory needs of learners - To explain how the ICT solutions can be used for particular learning, language, motor and sensory needs of learners	B
B.7	- To identify opportunities for learners to get in touch with ICT	B

4.3 Teaching method(s)- activities

- Case studies
 - o Written case studies (individual reading)
 - o Videos
- Group discussion
- Brainstorming
- Examination of case studies

4.4 Description of the session

- Introduction of the session by the trainer: M2_S4_IntroductionTrainer.docx + some copies of M2_S4_Digital Play Framework.pdf for the educators interested in more information about the Digital Play Framework the trainer refers to in the introduction.
- The trainer shows some videos of ICT use in ECEC. Additionally the educators read the examples/case studies/good practices of integrating digital technology in the daily work with children in preschool institutions (M2_S4_Examples of integrating ICT.docx).
- Group discussion on which written examples and/or videos are positive role models of using ICT solutions and why they are so.
- Group brainstorm on how they can get all their learners in ECEC in touch with ICT.
 - o The trainer will ensure that there is brainstorming on how to integrate ICT in role play.



- The trainer summarize the group brainstorm.
- The trainer tells some case studies of children with disabilities in ECEC (M2_S4_ExampleCaseStudy.docx).
- The educators (in small groups) needs to examine the case studies using the template M2_S4_Template.docx.
- Presentation and discussion of the outcomes of the examination of the case studies of the different small groups (peer feedback).
- Wrap-up of the session by the trainer.

4.5 Materials/means

Materials and Means are suggested resources that can be used, adopted, adapted or just consulted for the purposes of this Module and Session. Materials are expected to be localized or substituted by localized and contextualised resources.

- M2_S4_IntroductionTrainer.docx
- M2_S4_Digital Play Framework.pdf
- M2_S4_Examples of integrating ICT.docx
- M2_S4_Video_1
- M2_S4_Video_2
- M2_S4_Video_3
- M2_S4_ExamplesCaseStudies.docx
- M2_S4_Template.docx

4.6 Feedback

- Peer feedback during the brainstorms, group discussions and presentations.



5 Session 5

5.1 Competenc(y)ies

Code	Description	Level
B.9	To integrate ICT/AT as an integral and embedded part of play and learning activities.	I
B.10	To use the personal ICT/AT of learners with disabilities in all learning and play activities	I
B.11	To support and provide possibilities for learners to use ICT/AT in activities in and out of the classroom	I
B.13	To provide alternative methods of assessment of learning, language, motor and sensory learning, development and performance of all children with the use of ICT/AT	I

5.2 Learning outcomes

Code	Learning outcomes	Level
B.9	- To integrate existing good practices of ICT as an integral and embedded part of play and learning activities.	I
B.10	- To promote the use of the personal ICT of learners with disabilities in all learning and play activities	I
B.11	- To enable learners to use a specific ICT in different environments in and out of the classroom	I
B.13	- To evaluate the existing assessment methods - To differentiate assessment of learners' achievement and progress by the implementation of ICT/AT	I

5.3 Teaching method(s)- activities

- Flipped classroom:
 - o Individual reading of existing good practices of ICT at home
 - o Group discussion on integration of the existing good practices in the own ECEC-setting
 - o Collaborative learning on differentiating assessment methods



5.4 Description of the session

- The educators will read the document with existing good practices of ICT at home (M2_S5_Examples of integrating ICT.docx).
- In the session, the educators will explain and practical show to each other in small groups how they will integrate existing good practices in their own ECEC-setting.
 - o In play and learning activities both in an out of the classroom.
 - o By the use of both ICT owned by the ECEC-setting and the personal ICT of learners with disabilities.
- In the same small groups the educators list the assessment methods they currently use in their ECEC-setting and brainstorm about how they can provide alternative methods of assessment of learning, language, motor and sensory learning, development and performance of all children with the use of ICT. They use template M2_S5_Template.docx. They will also bring in practice the alternative methods of assessment.
- The small groups of educators present their outcomes to the other groups by the use of the Jigsaw method and the results are discussed (peer feedback).
- Wrap-up of the session by the trainer.

5.5 Materials/means

Materials and Means are suggested resources that can be used, adopted, adapted or just consulted for the purposes of this Module and Session. Materials are expected to be localized or substituted by localized and contextualised resources.

- M2_S5_Examples of integrating ICT.docx
- M2_S5_Template.docx
- ICT tools: PC, laptops, tablets, smartphones to bring the good practices and alternative methods of assessment in practice.

5.6 Feedback

Peer review



6 Session 6

6.1 Competenc(y)ies

Code	Description	Level
B.16	To reflect and re-design learning for actively engaging learners in using their ICT and accessibility requirements	A

6.2 Learning outcomes

Code	Learning outcomes	Level
B.16	<ul style="list-style-type: none">- To evaluate the current learning without use of ICT and accessibility requirements- To re-design learning for actively engaging learners in using their ICT and accessibility requirements	A

6.3 Teaching method(s)- activities

- Collaborative learning in small groups

6.4 Description of the session

- The educators will in small groups reflect on the current learning in their ECEC-setting without use of ICT and accessibility requirements and re-design (in practice) a few of those learning activities considering the use of ICT and accessibility requirements.
- The small groups of educators present their re-designed learning activities to the other groups by the use of the Jigsaw method and the results are discussed (peer feedback).
- Wrap-up of the session by the trainer.

6.5 Materials/means

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6.6 Feedback

Peer review



7 Session 7

7.1 Competenc(y)ies

Code	Description	Level
C.3	To have basic technical and functional knowledge about the specific equipment used by specific learners	B
C.4	To be aware of the referral routes including access to funding, professional advice on the use of ICT/AT and support as required to address learners' needs	B

7.2 Learning outcomes

Code	Learning outcomes	Level
C.3	- To identify basic technical and functional characteristics of ICT equipment	B
C.4	- To explain the referral routes including access to funding, professional advice and support as required to address learners' needs on the use of ICT	B

7.3 Teaching method(s)- activities

- Flipped classroom
 - o Individual research and reading
 - o Whole group discussion
 - o Whole group brainstorm
 - o Experiential learning in small groups

7.4 Description of the session

- The educators will read the document with information referral routes, including access to funding, professional advice and support, and will visit the websites sited in the document for their country by themselves (M2_S7.docx).
- During the session, the trainer asks if there are any questions about the information on referral routes, funding, professional advice and support. The questions will be addressed in a whole group discussion.
- Whole group brainstorm on ICT that can be used in ECEC. In small groups the educators explore some of the ICT mentioned to identify the basic technical and functional characteristics.
- Evaluation by means of a quiz and wrap-up of the session by the trainer.



7.5 Materials/means

Materials and Means are suggested resources that can be used, adopted, adapted or just consulted for the purposes of this Module and Session. Materials are expected to be localized or substituted by localized and contextualised resources.

- M2_S7.docx
- Different types of ICT to explore: PC, laptop, smartphone, smartboard, camera, sound system, IoTs, apps, software and online resources.
- M2_S7_Quiz

7.6 Feedback

- Quiz (M2_S7_Quiz)
- Peer review



8 Session 8

8.1 Competenc(y)ies

Code	Description	Level
C.5	To have knowledge of basic ICT/AT that can be used for the inclusion of children with disabilities in the classroom	I
C.6	To use ICT/AT and accessibility resources for the needs of particular children.	I
C.7	To know reliable sources of information about ICT/AT solutions at local/national level and to be aware of funding mechanisms, policies and standards at local level.	I
C.8	To set up, configure and implement common/basic ICT/AT resources for young learners with disabilities	I

8.2 Learning outcomes

Code	Learning outcomes	Level
C.5	<ul style="list-style-type: none"> - To illustrate what ICT can be used for particular learners with disabilities - To illustrate how the use of ICT promotes inclusion of particular learners with disabilities 	I
C.6	<ul style="list-style-type: none"> - To illustrate how ICT can be used/implement for the needs of particular learners children 	I
C.7	<ul style="list-style-type: none"> - To explore reliable sources of information about ICT/AT solutions at local/national level and to be aware of funding mechanisms, policies and standards at local level. 	I
C.8	<ul style="list-style-type: none"> - Combine the basic ICT with various disability needs - To set up, common/basic ICT/AT resources for young learners with disabilities - To configure common/basic ICT/AT resources for young learners with disabilities - To implement common/basic ICT/AT resources for young learners with disabilities 	I

8.3 Teaching method(s)- activities

- Whole group brainstorm
- Experiential learning
- Examination of real-life examples using case studies



8.4 Description of the session

- The session starts with a whole group brainstorm on what ICT can be used for which particular learners with disabilities, how the ICT can be used and how the use of ICT promotes inclusion. The trainer uses document M2_S8_Template.docx to compile all the ideas.
- All the educators explore the accessibility settings of PC, laptop, tablet, smartphone and can use M2_S8_video_1 as a guidance or can search on the internet how to find the accessibility settings.
- The educators in small groups are presented with a case study and must provide a common/basic ICT solution and put this ICT solution into practice: setting up and configuring the ICT to the needs of the child in the case study (M2_S8_CaseStudies.docx) and drafting an implementation plan. They need to explore the internet on reliable information on their ICT solution and the funding mechanisms, policies and standards at local level on their ICT solution.
- The small groups of educators present their case study and ICT solution to the other groups by the use of the Jigsaw method and the results are discussed (peer feedback).
- Wrap-up of the session by the trainer.

8.5 Materials/means

Materials and Means are suggested resources that can be used, adopted, adapted or just consulted for the purposes of this Module and Session. Materials are expected to be localized or substituted by localized and contextualised resources.

- M2_S8_Template.docx
- M2_S8_Video_1
- M2_S8_CaseStudies.docx

8.6 Feedback

Peer feedback



9 Session 9

9.1 Competenc(y)ies

Code	Description	Level
C.10	To create accessible materials to support children with disabilities participation in play and learning.	A
C.11	To support children's parents through the ICT/AT selection and funding processes/mechanisms	A
C.12	To recognize the limitations of resources/ICT/AT and seek continuous improvement	A
C.13	To search and identify/select ICT/AT and accessibility resources for the particular needs of individual learners.	A

9.2 Learning outcomes

Code	Learning outcomes	Level
C.10	<ul style="list-style-type: none">- To develop accessible materials to support children with disabilities participation in play and learning.- To modify inaccessible materials in order to support children with disabilities	A
C.11	<ul style="list-style-type: none">- Recommend professionals and services on a local base and answer to parents' questions on procedures	A
C.12	<ul style="list-style-type: none">- Analyse the limitations of ICT tools- Make suggestions for improvements	A
C.13	<ul style="list-style-type: none">- To analyse the particular needs of individual learners- To identify ICT and accessibility resources for the particular needs of individual learners- To select ICT and accessibility resources for the particular needs of individual learners	A

9.3 Teaching method(s)- activities

- Collaborative and experiential learning in small groups
- Role play

9.4 Description of the session

- In small groups the educators transform one of their usual activities (e.g. morning welcome) in an inclusive one and make all the necessary materials accessible for children with disabilities by using ICT.
- In small groups the educators analyse the particular needs of individual learners in a case study (case on paper/case of experience) and select appropriate ICT solutions and accessibility resources for the particular needs of individual learners (M2_S9_CaseStudies.docx).



- The small groups of educators present their transformed activities (usual and case study particular needs) to the whole group and the results are discussed (peer feedback).
- In small groups the educators analyse the limitations of an ICT tool (PC, laptop, smartphone, smartboard, camera, sound system, IoTs, apps, software and online resources) and make suggestions for improvements. They capture their outcomes in the template (M2_S9_Template.docx).
- The small groups of educators present their analysis of limitations and suggestions for improvement to the other groups by the use of the Jigsaw method and the results are discussed (peer feedback).
- The educators do a role play exercise: some educators play parents with questions on ICT and procedures and the other educators need to formulate answers. After a while the educators switch roles.
- Wrap-up of the session by the educator.

9.5 Materials/means

Materials and Means are suggested resources that can be used, adopted, adapted or just consulted for the purposes of this Module and Session. Materials are expected to be localized or substituted by localized and contextualised resources.

- Different types of ICT to identify limitations: PC, laptop, smartphone, smartboard, camera, sound system, IoTs, apps, software and online resources.
- M2_S9_CaseStudies.docx
- M2_S9_Template.docx

9.6 Feedback

Peer feedback



10 Session 10

10.1 Competenc(y)ies

Code	Description	Level
D.5	To be aware of the need to stay up-to date with innovative practices in the use of ICT/AT in ECEC for inclusive education	B

10.2 Learning outcomes

Code	Learning outcomes	Level
D.5	- To acknowledge the need to stay up-to date with innovative practices in the use of ICT in ECEC for inclusive education	B

10.3 Teaching method(s)- activities

- Whole group discussion

10.4 Description of the session

- Based on their own experience , the educators can discuss on how their use of ICT changed during their life and career.
- The trainer, based on the fact that educators already experienced that ICT has changed quickly over the years, concludes that it is very important to stay up-to date with innovative practices in the use of ICT in ECEC for inclusive education and wrap-up of the session.

10.5 Materials/means

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10.6 Feedback

Peer feedback



11 Session 11

11.1 Competenc(y)ies

Code	Description	Level
D.15	To recognize possible safety issues related to ICT/AT use in order to plan mitigation/reduction strategies	A

11.2 Learning outcomes

Code	Learning outcomes	Level
D.15	- To recognize possible safety issues related to ICT use - To plan mitigation/reduction strategies for possible safety issues related to ICT use	A

11.3 Teaching method(s)- activities

- Case study
- Brainstorm

11.4 Description of the session

- Introduction by the trainer (M2_S11_Introduction.docx)
- The educators will in small groups watch the video (M2_S11_CaseStudy.docx) and identify possible safety issues related to every ICT tools used. The educators will plan mitigation/reduction strategies for these possible safety issues related to ICT tools used. The educators use the template (M2_S11_Template.docx) to write down their ideas.
- The small groups of educators present their outcomes to the other groups by the use of the Jigsaw method and the results are discussed (peer feedback).
- The session ends with a group discussion on what other possible safety issues the use of ICT can have and how these safety issues can be anticipated. The trainer makes a summary of the additional ideas in the template (M2_S11_Template.docx).
- Wrap-up of the session by the trainer.

11.5 Materials/means

Materials and Means are suggested resources that can be used, adopted, adapted or just consulted for the purposes of this Module and Session. Materials are expected to be localized or substituted by localized and contextualised resources.

- M2_S11_Introduction.docx
- M2_S11_Template.docx
- M2_S11_CaseStudy.docx

11.6 Feedback

Peer feedback