



**How to use the ADDIE Model for an
online *American culture course* design
and development**

Tuija Kae

Short biography

My name is Tuija Kae. I have taught ESL in Sotunki Upper Secondary School and Distance Learning Centre since 1998. Apart from teaching, I also work as an international coordinator and second assistant principal in our school. I have a master's degree in English Philology (minors Finnish Language, Comparative Literature, Pedagogical Studies) from the University of Helsinki. I have worked also as an English textbook author for the Finnish publishing company SanomaPro, having published a series of eight *On Track* textbooks for Finnish upper secondary schools, and I am just starting in a new textbook project called *Elements*. In addition, in 2019 I founded an educational company called EduBorealis Ltd with three of my colleagues, and work as a part-time course developer and trainer there.

Summary of my Inquiry Project

My Fulbright inquiry project was originally called *American Studies Online – an Interdisciplinary Approach to Teaching ESL*, but I decided to modify my project due to my participation in the Syracuse University's IDE632 Instructional Design and Development course. My focus shifted from a finished course to the actual design process of an online course, using the ADDIE Model I learned about in the IDE632 as the context of this process. Instructional Design, or Instructional Systems Design (ISD), is a relatively new concept in the field of education in Finland, and for me it offered new insights into planning online teaching. Sometimes Instructional Systems Design is also called Learning Design, which is a term we use in Finnish (*oppimismuotoilu*) when talking about the systematic approach to developing learning processes. I decided to concentrate on the planning process and the best practices in designing online courses and my inquiry project is now called *How to use the ADDIE Model for an online American culture course design and development*. In my inquiry project I thus present an outline of the design process for an online course in a Finnish upper secondary school.

Overview of the topic area

Instructional Design or Instructional Systems Design can be thought of as a process for creating effective and efficient learning processes (Clark, 1995). Instructional design focuses on a learner-centered rather than the traditional teacher-centered approach to instruction in order to effective

learning can take place (McGriff, 2000). It is a systematic planning process that can be used to develop education and training programs. Systematic here means a logical, rational approach to problem-solving. In short, in the ISD process the idea is to determine the state and needs of the learner, define the end goal of instruction, and create an efficient learning process that helps the learner to reach the goal. As the ISD process needs to be systematic, different models can be used to structure and plan the learning process or training program. An ISD model helps to define the activities that will guide the development of a project, for example, an online course, a training session or a series of classroom activities. The ADDIE Model is a widely used model in ISD. It is an acronym that refers to the major processes that comprise the generic ISD process: analysis, design, development, implementation, and evaluation (Molenda, 2003).

Using the ADDIE Model in an online course design

When starting the inquiry project, I set the following objectives for my work:

- Applying concepts of Instructional Systems Design on an online course design process.
- Demonstrating the ADDIE Model to give an example how an online course can be designed and developed.
- Defining the best practices for an online course development process by using the ADDIE Model.
- Showing my colleagues how to use the ADDIE Model and the best practices in a course design process and therefore increasing their awareness of Instructional Systems Design

There are a variety of ISD models available, which all “provide communication tools for determining appropriate outcomes, collecting data, analyzing data, generating learning strategies, selecting or construction media, conducting assessment, and implementing and revising the results” (Gustafson and Branch, 2002). I chose the generic ADDIE Model, as it is widely used and can be applied to accommodate different projects. ADDIE stands for Analysis, Design, Develop, Implement, and Evaluate. The phases sometimes overlies and can be connected to each other. Each phase of the model gives an opportunity for iteration and change before moving to the next one. The aim is at effective learning, and thus every component of the instruction should be governed by the desired learning outcomes, which have been determined after a thorough analysis of the learners’ needs (McGriff, 2000).

1 Analysis

The Analysis phase is the foundation in designing the learning process. In this phase the instructional designer defines what is to be learned. The analysis phase can also be called a Front-End Analysis (Clark, 1995). This can be done by a Needs Assessment, which assesses the gaps between the current results and the required results in measurable terms. A need is therefore a gap between current outcomes and required outcomes. The Analysis phase can also include problem identification or performing a task analysis. According to McGriff (2000) “The outputs of this phase often include the instructional goals, and a list of tasks to be instructed. These outputs will be the inputs for the Design phase.” Examples of these outputs could be, for example, a learner profile, a needs or problem statement, or a task analysis. In this phase I analyzed the new Finnish Upper Secondary School Core Curriculum, Sotunki students, and the available learning management systems.

The Finnish core curriculum for upper secondary schools was approved in 2019 and will be in effect starting from fall 2021. As my planned online American culture course is an optional course, I looked at the general objectives of the curriculum and what changes or emphases it will bring to schools. According to the new national core curriculum for Finnish upper schools we need:

- Studies across subject boundaries

General upper secondary schools could provide more extensive study modules crossing subject boundaries more freely than before. This would **help students deepen their competence in areas required for example in further studies or working life**. According to the new national core curriculum, there is also a need to include **content and language-integrated learning (CLIL)** in the teaching of foreign languages.

- Stronger focus on internationality

General upper secondary schools should pay **more attention to internationality** and ensure that every student has an opportunity to gain international experiences during their studies. Students' possibilities **to improve skills needed in working life and entrepreneurship** would be improved by increasing collaboration with the surrounding society.

- New curriculum for foreign languages emphasizes **cross-curricular collaboration**.

- Foreign languages deal with themes that **integrate language learning with the content of other subjects**.

I concluded that the planned American culture course would fulfill many of these needs. It would combine content and language learning, give more attention to internationality, require cross-curricular collaboration and integrate language learning with other subjects, in this case the Finnish language and literature studies, Art, Music, History, even Social Sciences.

As for analyzing the students, I used my observations and feedback from previous online ESL courses to determine the learner profile. They are all English language learners, not first-language learners, which clearly has to be taken into consideration when planning the course. Their ages vary a lot, we have young adults but also more mature adults taking the courses. There is a great variety on the students' skill levels, which should be addressed. One solution would be to cater to the needs of those students, whose English skills are quite good. The course content would reflect the skill level needed for the course. The American culture course would offer the more advanced ESL students more independent and advanced studies, and they could choose the course as part of their compulsory English studies or as an optional course. This course would give them two study credits for the required 150 study credits students have to complete during their upper secondary school studies. All our students use laptops and online materials in classes, both in upper secondary school and the distance learning centre, so they are all quite digitally savvy and can manage participating in an online course. In analysis phase it would also be good to give the students a survey to find out what their needs, expectations, and competencies are.

In the Analysis phase I also investigated the learning environments that would best suit the needs of my students and our school. In our Distance Learning Centre teachers are required to use the learning management platform called Itslearning, but in Sotunki Upper Secondary School most teachers use Google Classroom. The functionalities of these two are a bit different, as both provide many tools and functionalities necessary for an online course. I decided to continue with Itslearning, as it is the current environment used in the Distance Learning Centre, so it would complicate matters if a different learning environment was used for the course. A more detailed analysis of Itslearning is needed in the Evaluation phase of the design process, and a student survey would be a good idea to find out how user-friendly and effective the learning management system eventually was.

2 Design

The Design phase insures the systematic development of the learning process. If the Analysis phases answers the question what needs to be learned, the Design phase specifies how it is to be learned. This phase involves using the outputs from the Analyze phase to plan a strategy for developing the instruction (McGriff, 2000). During this phase, it is essential to outline how to reach the instructional

goals determined during the Analyze phase. This phase includes, for example, writing learning objectives and test items, planning the instruction and identifying resources. For me the main focus was writing the learning objectives and planning the instruction accordingly. Again, I looked at the Finnish national core curriculum, as well as the Common European Framework of Languages (CEFR) for writing the learning objectives. Learning objectives should describe the specific learning outcomes of an instructional session, the conditions under which the learning occurs, and the criteria of success. A learning objective is a statement that tells learners what they should be able to do, in measurable terms, after instruction (Koszalka, 2017). A learning object should neither describe instructional activities nor the activities students will complete during the learning process.

Learning objectives:

General objectives for foreign language learning for Finnish Upper Secondary Schools (English, level A1) according to the new curriculum (2021).

Interaction skills, text interpretation and production skills

The goal is for the student

- to get practice in the **wide and varied use of the language**
- to gain experience in a **wide range of learning and language use environments** in the target language
- is able **to relate their own competence to the target skill levels** of the developing language proficiency description scale (level B2.1) according to the Common European Framework of Languages, and **to set their own objectives, evaluate the development of their skills and further develop these skills.**

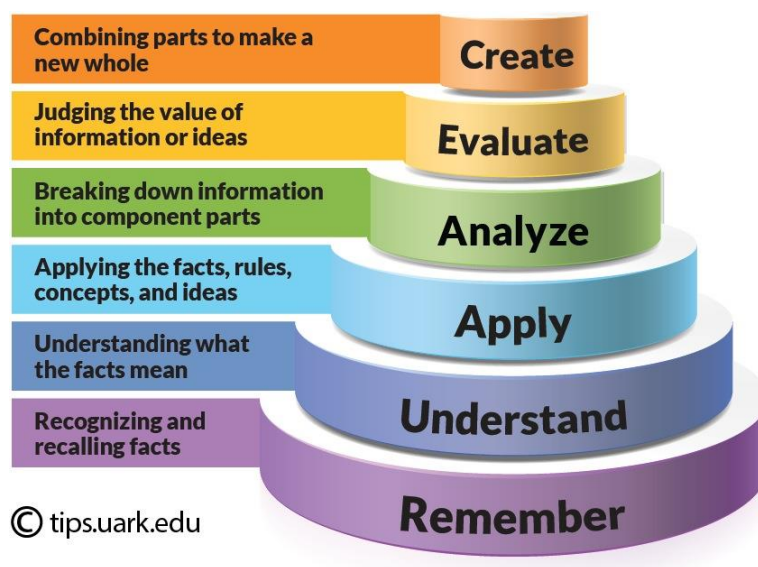
Level B2.1 in Common European Framework of Languages (CEFR)

- Can **understand the main ideas of complex text** on both concrete and abstract topics, including technical discussions in his/her field of specialization.
- Can **interact with a degree of fluency and spontaneity** that makes regular interaction with native speakers quite possible without strain for either party.
- Can **produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue** giving the advantages and disadvantages of various options.

More specifically: Text production skills

- Can write clear, detailed texts on a variety of subjects related to his field of interest, synthesizing and evaluating information and arguments from a number of sources.
- Can write an essay or report that develops an argument systematically with appropriate highlighting of significant points and relevant supporting detail.
- Can evaluate different ideas or solutions to a problem.

I then had a look at Bloom’s Taxonomy to help me in writing the learning objectives. Bloom’s Taxonomy is “a classification of different objectives and skills that educators set for their students” (Shabatura, 2018).



Picture credit: Jessica Shabatura.

OBJECTIVES: What learners can DO, in measurable terms, AFTER instruction, not DURING

Here are examples of the learning objectives for the American culture course. The learning objectives stay mainly in the first three levels, because this is an introductory course to American culture and striving for the higher levels might frustrate the students.

American culture course objectives

Objectives	Instructional strategies	Bloom’s taxonomy
- remember vocabulary related to culture and the arts	reading repetition	REMEMBER

<ul style="list-style-type: none"> - define the most important works of art / artists introduced in the course - recall different art forms 	lecture notetaking worksheet	defines, describes, identifies, knows, labels, lists, matches, names, outlines, recalls, recognizes, reproduces, selects, states
<ul style="list-style-type: none"> - explain the idea of the American Dream - identify American cultural characteristics - describe different artistic movements in the USA 	concept mapping inquiry review and identify Q&A take notes Internet search	UNDERSTAND comprehends, converts, defends, distinguishes, estimates, explains, extends, generalizes, gives an example, infers, interprets, paraphrases, predicts, rewrites, summarizes, translates
<ul style="list-style-type: none"> - prepare a learning diary (reflecting the learning process) - produce an oral presentation on one specific artist or movement OR - produce a written mini-research paper on an artist or movement 	problem- / case-based generative create a process blog practice	APPLY applies, changes, computes, constructs, demonstrates, discovers, manipulates, modifies, operates, predicts, prepares, produces, relates, shows, solves, uses

		ANALYZE appraise, compare, contrast, criticize, differentiate, discriminate, distinguish, examine, experiment, question, test
		EVALUATE appraise, argue, defend, judge, select, support, value, evaluate
		CREATE assemble, construct, create, design, develop, formulate, write

At the Design phase I also had a look at the Specific Review Standards from the QM K-12 Rubric by Quality Matters that my faculty advisor Jason Curry suggested for reference. They provide excellent guidance on the elements a well-designed and effective should contain. These elements are:

- Course overview and Introduction
- Learning objectives
- Assessment
- Instructional materials
- Learning activities (learner interaction)
- Course technology
- Learner and Instructor support
- Accessibility and Usability

Each of these contain a specific list of standards to follow. To give an example, learning objectives or competencies should be measurable and describe what learners will be able to demonstrate as a result of successfully completing the course, they are aligned with state standards and/or other accepted content standards, and they are designed and written for the target student audience. This is something I have to focus on more when I design any future online courses.

Another good source to use in the Design phase was the Syracuse University Rapid Online Course Development Guide also suggested to me by Jason Curry. As all the instruction in Syracuse University was moved online due to the Corona virus situation, their Information Technology Services quickly put together this guide. The purpose of the guide is “to provide a concise source of information for online course development and instruction best practices, paired with technical references, in areas that may need to be developed rapidly in a dynamic operating environment.” The guide gives quite detailed advice what to do when designing an online course. The main areas the guide addresses are 1) outline or structure of the course, 2) coursework and content, 3) classroom community, 4) assessments. Some things to consider are:

- Maintain a simple layout.
- Explain the details of the course in an explicit format and organize materials in smaller sections using Folders or Modules, and name them consistently.
- Pay attention to the accessibility standards with the course materials.
- When giving an online lecture, always prepare a script and record it so that course participants can access it later.
- Build a community in the online classroom to enhance student engagement.
- Use different assessment methods than in classroom teaching: *For example, instructors of large classes can reduce the risk of cheating by substituting a small number of short-answer questions for a larger block of multiple-choice questions AND keep the grading load manageable by having students complete the exam in pre-assigned groups.*

The following three phases of the ADDIE Model I have not yet completed but I will give a short description of what they will contain.

3 Development

The Development phase is the process of authoring and producing the materials. During this phase I will develop the instruction and the media used in the instruction. I will list learner activities, choose the delivery system, review existing material, develop instruction, and validate instruction (e.g. set

up a small group trial). I could also set up an online course prototype in Itslearning and ask feedback from my colleagues and a small group of students.

My course outline would probably be the following:

Introduction (week 1)

Module 1: American Identity (week 2)

Module 2: The American Dream (week 3)

Module 3: American Literature (week 4)

Module 4: American Music (week 5)

Module 5: American Art (week 6)

Final product (week 7)

4 Implementation

The purpose of the Implementation phase is the effective and efficient delivery of instruction. As the new Finnish national core curriculum will be in effect starting August 2021, the American culture course can be offered as an optional course for students in Sotunki Distance Learning Center during the school year 2021-2022. Both our adult learners at the Distance Learning Centre and younger students at the Sotunki Upper Secondary School can then choose this course as part of their studies and earn two study credits. If they choose to take it as an optional course, they need to pass the course, but no grade is given. If they decide to use it as a compulsory course, the grading system is from 4 (pass) to 10 (outstanding). The course will be offered in an asynchronous manner and all course materials can be accessible online.

5 Evaluation

This phase measures how effective the instruction has been. Evaluation should actually take place during the whole instructional design process, during phases, between phases, and after implementation. According to McGriff (2002), evaluation may be formative or summative.

Formative evaluation is ongoing during and between phases. By using formative evaluation, it is possible to improve the instruction before the final version is implemented. Summative evaluation then usually occurs after the instruction is finished, in this case after the students have completed the American culture course. Summative assessment looks at the overall effectiveness of the instruction, and data collected from it is often used to make decisions about the instruction, whether it needs

changes, should it continue or be terminated. Summative assessment could in my case include the results of the final exam, the grades of the course assignments, course drop-out rate vs the number of students who passed the course, a questionnaire for the learners, and using an external source like Quality Matters to assess the course.

Conclusion

In this paper I described the course design process and the use of the ADDIE model in the process of creating an online American culture course. I will submit the paper to IREX in the OBA system for fellow Fulbright DAI grantees to read. The ADDIE Model helped me enhance my knowledge of a curriculum or course design process, and I will be able to share this knowledge with my colleagues at educational workshops in the future. I will prepare a presentation of the ADDIE model in Finnish for my colleagues at Sotunki Upper Secondary School to be given at a workshop for our distance learning teachers. We have workshops for teachers five times in a year. I can also offer to present the ADDIE model for course design process or the finalized online American culture course at an educational event of the Association of Foreign Language Teachers in Finland.

Sources

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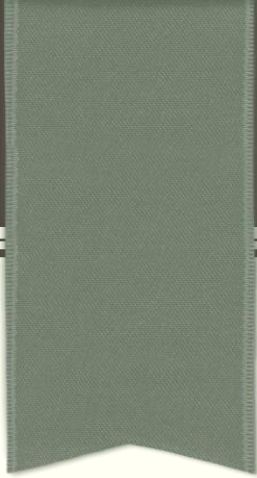
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HOW TO USE AN ADDIE MODEL FOR AN ONLINE *AMERICAN CULTURE* COURSE DESIGN AND DEVELOPMENT

Tuija Kae



Description of the project

Objectives:

- Applying concepts of Instructional Systems Design (ISD) on an online course design process.
- Demonstrating the ADDIE Model to give an example how an online course can be designed and developed.
- Defining the best practices for an online course development process by using the ADDIE Model.
- Showing my colleagues how to use the ADDIE Model and the best practices in a course design process and therefore increasing their awareness of Instructional Systems Design.

Data and sources

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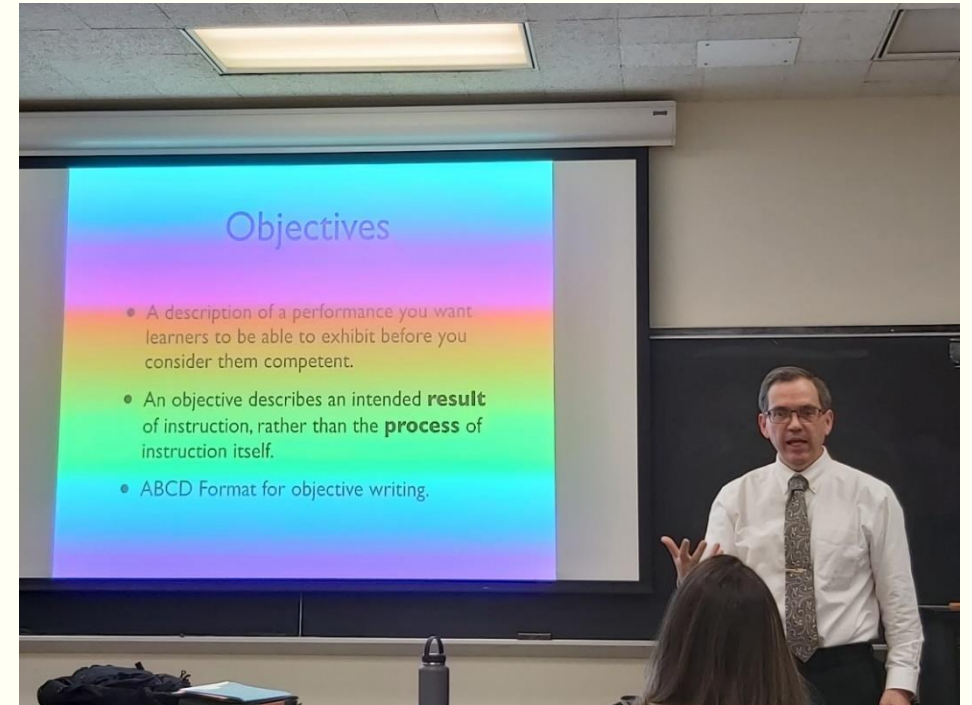
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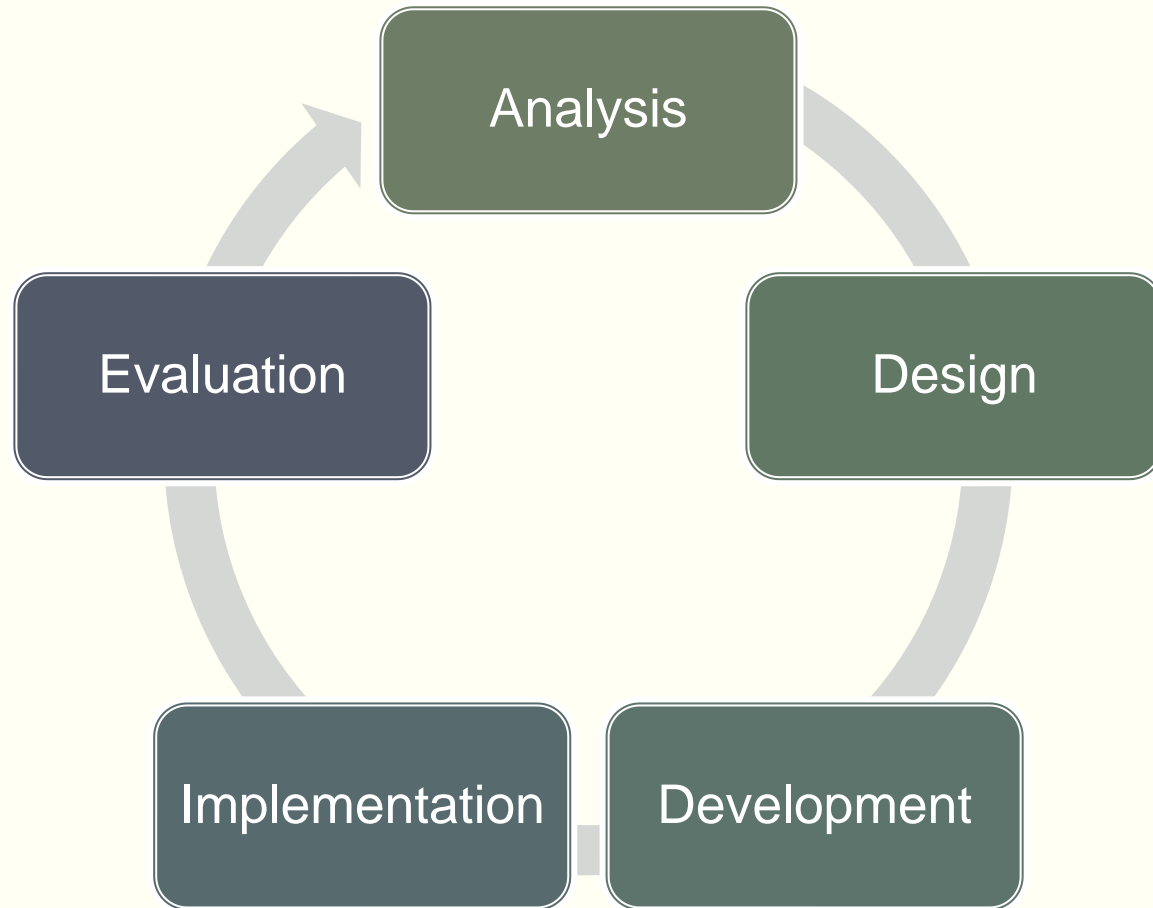
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Gerald Edmonds teaching the IDE632 course

THE ADDIE MODEL



THE ADDIE MODEL in the design process of an online American Culture Course



Analysis

Define gaps in learning, needs assessment (Front-End Analysis).

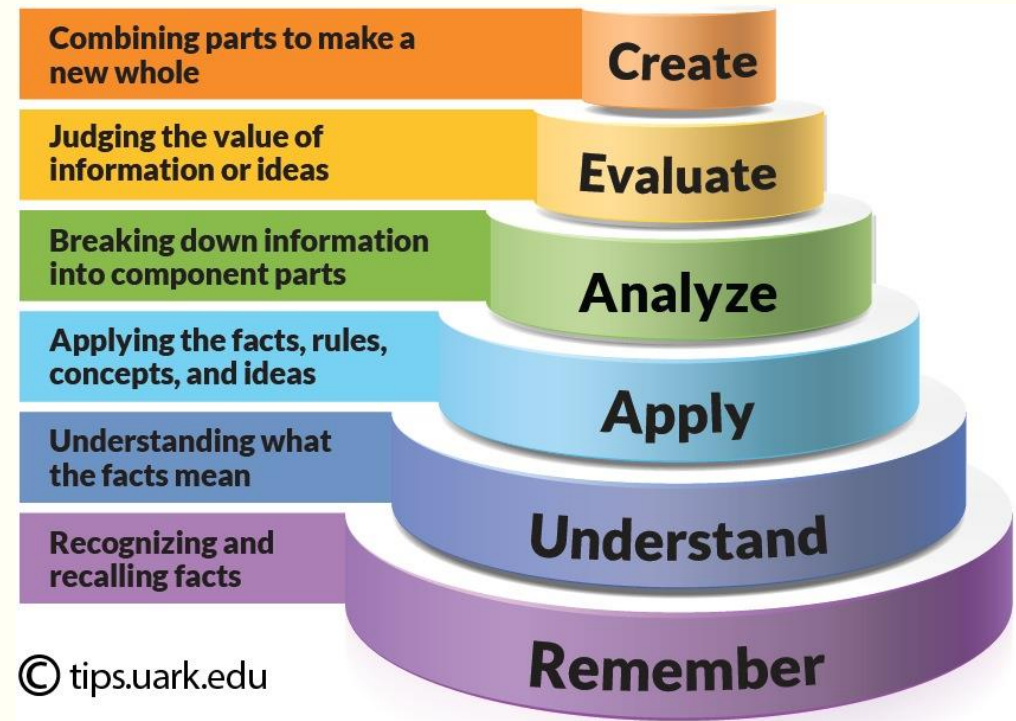
-> Analysis of the new Upper Secondary School Core Curriculum, Sotunki students, and the learning management system (Itslearning vs Google Classroom).

THE ADDIE MODEL in the design process of an online American Culture Course

Design

- Create learning objectives, plan instructional strategies and assessment methods.
- Use Level B2.1 in Common European Framework of Languages, and Bloom's Taxonomy.
- K-12 Rubric Standards by Quality Matters

Bloom's taxonomy



THE ADDIE MODEL in the design process of an online American Culture Course



Development

- List learner activities, choose delivery system, review existing material, develop instruction, validate instruction (e.g. small group trial).
- Use Rapid Online Course Development Guide, Syracuse University for developing the outline.
- Create an online course prototype in Itslearning learning management system.

THE ADDIE MODEL in the design process of an online American Culture Course



Implementation

- The actual delivery of the learning, training, product or process.
- The online American Culture Course offered as an optional course for students in Sotunki Distance Learning Center (2021-2022).
- An asynchronous online course.



Evaluation






- To ensure that the stated goals of the learning process will actually meet the required need.
- An ongoing process during the first four phases of ADDIE (formative), summative evaluation in the last phase.
- Summative evaluation examples: Questionnaire for the learners, using an external source like Quality Matters, number of students who passed the course.

American culture course outline in Itslearning

its Home Courses Groups Calendar Library Your students Admin Apps+Tools EU Käyttäjät-yhteisö Wilma

Viewing the course as: Student

ACC Overview Plans Resources Follow-up and reports Participants More

Welcome to American Culture Course!	 <p>Hi! I am your American Culture Course teacher Tuija Kae. You can contact me by sending a Wilma message, email (tuija.kae@eduvantaa.fi) or phone 050-554 1547. Do not hesitate to contact me and ask for advice. Please start by reading the information in this section.</p> <p>You will find this information in the Plans section during the course. Click Start and read the information on course instructions, objectives, assessment and exam. You can move forward with the arrow in the top right-hand corner. When you have read all the information, click YES after the question Have you completed this task?</p>	-	<ul style="list-style-type: none">Course overview and objectivesCourse schedule and assignmentsCourse assessment and exam<input checked="" type="checkbox"/> Reading the course instructions
Module 1: American Identity		-	-
Module 2: The American Dream	 <p>The American Dream</p>	-	-
Module 3: American literature		-	-
Module 4: American music		-	-

Sharing my final project

- I will submit a paper for IREX in which I describe the course design process and the use of the ADDIE model in the process.
- I will prepare a presentation of the ADDIE model in Finnish for my colleagues at Sotunki Upper Secondary School to be given at a workshop for our distance learning teachers. We have workshops for teachers 5 times in a year.
- I can offer to present the ADDIE model for course design process or the finalized online American Culture Course at an educational event of the Association of Foreign Language Teachers in Finland.



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