«Gamification as an effective tool of engaging students in educational process»

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Gamification as an effective tool of engaging students in educational process

**Distance learning: challenges for Ukraine – 2022:**

COVID-2019 (extension of quarantine restrictions);
**WAR– 2022** (active hostilities in the eastern and southern regions)
Gamification as an effective tool of engaging students in educational process

27 of March – resumption of the educational process in remote form
Gamification as an effective tool of engaging students in educational process

Consequences of the war

Тетяно Сергіївно, добрий день, у мене немає можливості виконувати роботи на комп'ютері або телефоні, тому що у мене дуже слабкий інтернет. Що робити?

Доброго дня, Тетяна Сергіївна. У мене немає можливості робити лабораторні, що мені робити

Я не можу їх виконувати тому що немає можливості користуватися ноутбуком або комп'ютером

Вибачте що пишу у вихідний, у мене немає хорошого інтернету, я вже 3 місяці сиджу через роумінг, оскільки сім карті видають із закордонним паспортом, а у мене його немає і я не в Україні. Я не зможу бути присутнім на іспиті, що мені робити?
Gamification as an effective tool of engaging students in educational process
Gamification - the use of gamification practices and mechanisms in a non-gaming context to engage end users in problem solving (Wikipedia)

Gamification is a way of influencing human behavior based on the use of game elements.

Gamification in education is a process of spreading the game to different areas of education, which allows us to consider the game as a method of teaching and education, and as a form of educational work, and as a means of organizing a holistic educational process.
✓ Synchronous lesson tools
✓ Services for organizing online testing system
✓ Applications for games, quizzes and exercises
✓ Programming game applications

"Gamification tools of engagement student in education process"
Synchronous lesson tools

https://nearpod.com/
Synchronous lesson tools

https://nearpod.com/

What is learning?

How would you define learning? What is learning about? What are the conditions for effective learning? Work in your groups and add words and phrases or images to share your understanding of the word.

- New information which later
- Learning is the constant way to gain new and improve yourself
- Learning is a process of gaining new information and skills. Positive impact is important
- Mastering smth new
- Studying sth which is useful, interesting and applicable
- A process of getting new knowledge and new skills
- Lifelong process of change and development
- A life-long process
- Self improvement
- Gaining knowledge and skills
- This is an ongoing journey to reach the hights
- New knowledge
- To get new knowledge
- Creating new knowledge
- Learning us the way to yourself and to this world
- Finding out new knowledge and skills that you can use later.
- Gaining knowledge and skills through processing information, getting experience
- Search for new information
- Learning - acquiring new details about the environment and structuring them. The condition for successful
Synchronous lesson tools

https://nearpod.com/
Synchronous lesson tools

https://miro.com/
Synchronous lesson tools

https://padlet.com/
Synchronous lesson tools

https://padlet.com/
Synchronous lesson tools

https://classroomscreen.com/
Тайм-менеджмент як способ самоорганизации

Як Ви розумієте це поняття і які у Вас виникають асоціації в межах цієї теми? Чому можна навчитися якщо правильно використовувати правила тайм-менеджменту?

https://jamboard.google.com/
Services for organizing online testing system

https://docs.google.com
Services for organizing online testing system

https://docs.google.com

2. Дайте визначення програми Tildee?

- інструмент для створення електронних підручників
- інструмент для створення контрольних питань
- інструмент для створення енциклопедій
- інструмент для створення... (не написано)

11. Виберіть основні пункти технічного завдання

- підставка для розробки
- інструкція користувача
- вимоги до програмної документації
- призначення розробки
- вимоги до програми або програмного виробу
- інструкція оператора
- опис застосування
Services for organizing online testing system

https://onlinetestpad.com/

Online Test Pad

Конструктор тестов

Бесплатный многофункциональный сервис для проведения тестирования и обучения

Что умеем
Services for organizing online testing system

https://onlinetestpad.com/

Online Test Pad

Тесты онлайн в Online Test Pad

Популярные тесты

Образовательные
- Промежуточная (годовая) аттестация по литературе 9 класс
- Итоговый тест по математике 6 класс
- ИТОГОВЫЙ ТЕСТ ПО БИОЛОГИИ 8 КЛАСС
- Тестовая работа «Повторение изученного в 7 классе»
- Итоговый тест по биологии для 5-го класса
- Алгебра 8 класс
- Итоговый тест по окружающему миру за учебный год, 4 класс
- 6 класс. Русский язык. Итоговая работа.

Психологические
- Выбор будущей профессии
- Математика - 6 класс, итоговый тест
- Психотип личности
- Простой тест на IQ бесплатно онлайн без регистрации
- Ваш уровень эмпатии
- Шкала депрессии Э. Бека
- Госпитальная шкала тревоги и депрессии
- Итоговый тест по астрономии

Развлекательный
- Кто ты из Винкс?
- Какая Вы машина?
- Гендерные установки обществом
- Какой у тебя паттерн
- Славянская письменность
- Состав атомного ядра. Энергия связи. Дефект массы
- Угадай Мелодию
- тест на знание музыки
Services for organizing online testing system

https://www.classtime.com/en/

The clear path to student success.

Classtime is a solution for classrooms that complements in-class teaching with immediate feedback on students' level of understanding.

Teachers

Start now

Students

Enter your code here

Join

or log in with your student account
Services for organizing online testing system

https://www.classtime.com/en/
Applications for games, quizzes and exercises

https://nearpod.com/
Applications for games, quizzes and exercises

https://nearpod.com/
Applications for games, quizzes and exercises

https://getkahoot.com

Make learning awesome!

Kahoot! brings engagement and fun to more than 1 billion players every year at school, at work, and at home

Sign up for free! or Go premium for business
Applications for games, quizzes and exercises

https://getkahoot.com
Applications for games, quizzes and exercises

https://getkahoot.com
✓ Applications for games, quizzes and exercises

https://wordwall.net/

The easy way to create your own teaching resources.

Make custom activities for your classroom.
Quizzes, match ups, word games, and much more.

Easy as 1-2-3

Create a customized resource with just a few words and a few clicks.

1. Pick a template
2. Quiz
3. Print out your activities
## Applications for games, quizzes and exercises

https://wordwall.net/

### Interactive Activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Match up</strong></td>
<td>Drag and drop each keyword next to its definition.</td>
</tr>
<tr>
<td><strong>Quiz</strong></td>
<td>A series of multiple choice questions. Tap the correct answer to proceed.</td>
</tr>
<tr>
<td><strong>Random cards</strong></td>
<td>Deal out cards at random from a shuffled deck.</td>
</tr>
<tr>
<td><strong>Open the box</strong></td>
<td>Tap each box in turn to open them up and reveal the item inside.</td>
</tr>
<tr>
<td><strong>Random wheel</strong></td>
<td>Spin the wheel to see which item comes up next.</td>
</tr>
<tr>
<td><strong>Missing word</strong></td>
<td>A cloze activity where you drag and drop words into blank spaces within a text.</td>
</tr>
<tr>
<td><strong>Anagram</strong></td>
<td>Drag the letters into their correct positions to unscramble the word or phrase.</td>
</tr>
<tr>
<td><strong>Group sort</strong></td>
<td>Drag and drop each item into its correct group.</td>
</tr>
<tr>
<td><strong>Find the match</strong></td>
<td>Tap the matching answer to eliminate it. Repeat until all answers are gone.</td>
</tr>
<tr>
<td><strong>Unjumble</strong></td>
<td>Drag and drop words to rearrange each sentence into its correct order.</td>
</tr>
<tr>
<td><strong>Labelled diagram</strong></td>
<td>Drag and drop the pins to their correct place on the image.</td>
</tr>
<tr>
<td><strong>Matching pairs</strong></td>
<td>Tap a pair of tiles at a time to reveal if they are a match.</td>
</tr>
<tr>
<td><strong>Wordsearch</strong></td>
<td>Words are hidden in a letter grid. Find them as fast as you can.</td>
</tr>
<tr>
<td><strong>Flip tiles</strong></td>
<td>Explore a series of two sided tiles by tapping to zoom and swiping to flip.</td>
</tr>
<tr>
<td><strong>Crossword</strong></td>
<td>Use the clues to solve the crossword. Tap on a word and type in the answer.</td>
</tr>
<tr>
<td><strong>True or false</strong></td>
<td>Items fly by at speed. See how many you can get right before the time runs out.</td>
</tr>
<tr>
<td><strong>Maze chase</strong></td>
<td>Run to the correct answer zone, whilst avoiding the enemies.</td>
</tr>
</tbody>
</table>
Applications for games, quizzes and exercises

https://wordwall.net/
Applications for games, quizzes and exercises

Plickers https://www.plickers.com/
Programming game applications

1. Untrusted
2. Robocode
3. Elevator Saga
4. Vim Adventures
5. CodeCombat
6. Flexbox Defense
7. Code Hunt
8. CheckIO
9. Screeps
10. CSS Diner
The principle of simulator operation:

1. Training takes place in a playful way.
2. The conditional image of the robot as a smiley face is the main character of the game.
3. There is a maze with different types of fields: open fields, closed fields, fields with mandatory attendance.
4. The student selects a set of commands from the available list of commands to guide the robot through the maze from the start to the end field (the robot can move from one field to another by moving left, right, up, down).
5. The robot cannot go beyond the maze.
6. Gradually, the tasks become more complex. At first, there are tasks for linear algorithms, and then for cyclic, conditional, and procedural ones.
Editing the maze:

Turn on/tum off Panel:

T   G   B

Cycle from 1 to 4

Start program
Turn up
Cycle from 1 to 4

End program

Creating a new maze:

<table>
<thead>
<tr>
<th>cell</th>
<th>cell</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

OK

Save all changes in maze
Functions are available at editing the maze:

- changing the maze cell;
- transpose the maze;
- horizontal display of the maze;
- vertical display of the maze;
- adding lines and columns to the maze;
- clearing all cells.
The main form of the simulator:

User Belous Ivan, Linear program, Level 1

Load the latest View Start the program Maze Task Levels Change user Close

Level 1 Level 2 Level 3 Level 4 Level 5 Level 6 Level 7 Level 8 Level 9 Level 10

Level 1
It is necessary to lead the hero to the house without hitting the black fields

Run Stop Run All
Clearing all Delete

List of available commands
1. Move up
2. Move down
3. Move left
4. Move right

Move right
Move down
Move down
Move down
Move right
The simulator menu provides the following functions:

- loading the last option for completing the task;
- editing the system view (for example, minimizing individual program fields);
- going to the next, previous, or selected level;
- selecting the program code execution mode (run command, run all, stop code execution);
- up-dating the maze;
- changing the user;
- saving the results;
- logging out.
Task: to develop a program, according to the results of which the robot shall go from the starting point to the house without hitting the black fields while collecting all the apples. One should use internal cycles when writing a program.

The list of available commands to solve this issue includes commands to move the robot:
- Move for 1 cell;
- Go back 90° clockwise;
- Go back 90° counterclockwise

and cycle commands:
- Cycle from 1 to n, where n varies from 3 to 7;
- End of the cycle.
The possible trajectory of the robot's movement:
Simulator for the Formation Programming Skills

<table>
<thead>
<tr>
<th>Группа</th>
<th>Имя</th>
<th>Тема</th>
</tr>
</thead>
<tbody>
<tr>
<td>ДКТ-К12-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ДКТ-К13-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ДКТ-проф13-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ДКТ-проф14-1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Регистрация**

[OK]
Gamification and Visualization

Welcome to virtual tour to our class