

Comparative Analysis of the Results from a Survey in Bulgaria, Italy and Finland. Design Thinking Workshop in Bulgaria

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TLIT4U Comparative Study Findings and Open Questions

Bulgarian Students

- They recognize the Importance of Scientific Research and Digital Skills
- Importance of Digital Skills in the Labor Market
- A Desire for Practical Training and Technical Skills
- Understanding of Research Complexity: Data Collection, Analysis, Verification
- Some Express a General Understanding of 21st-century Research: "The Application of Scientific Methods to the Study of Something", "Process" and the like
- Respondents may have Confusion but Align with Digital Fluency
- Some Respondents Overlook Out-of-process Research Methods
- Notably, some Mention "sharing" Research Results and Data, Despite Curriculum Omission

Finnish Students

- They View Digital Literacy as:
 - Searching, Evaluating, and Analyzing Information
 - Using Digital Tools for Critical Interpretation
- The Research Process Involves Multiple Stages:
 - Topic Selection, Research Questions, Data Analysis, and more
- Noteworthy: Emphasis on Sharing Research Results
- Research is Seen as Multidimensional, Generating New Information

Italian Students

- Italian Learners Prioritize 21st-century Technological Skills
- Disagreement on Soft Skills, with a Focus on Social Skills
- Digital Literacy Includes the Ability to Evaluate Information
- Strong Consensus on Digital Fluency: Tech and Communication Skills
- Fluency Seen as Curiosity, Creativity, and Innovation.
- High Impact on Data Analysis and Communication Skills
- Interest in STEAM Education; Unaware of Digital Transformation in Higher ed.
- Emphasis on Inquiry as Searching for Information, not Academic Research Methods

TLIT4U Comparative Study Findings and Open Questions: Research Continuum

Digital Fluency

- **Bulgaria:** In the Majority of the Opinions Expressed, Fluency is Understood as “Computer Literacy”, “Ability to Work with a Computer”, “Knowledge of the IT Sphere”, “Being Aware of the Internet of Things”, “Ability to Use ICT”
- **Finland:** Fluency is Understood as the Ability and Skills to Search for, Critically Evaluate and Analyze Information, to use Various Digital Tools and to Work in a Digital Environment.
- **Italy:** Substantial Agreement on Digital Fluency as Technological Skills. Soft Skills are Especially Appreciated Together with Social Communication Skills.

Research Inquiry

- **Bulgaria:** Respondents Focus on Resources and Tools for Discovering Information and Knowledge
- **Finland:** Respondents Understood the Process of Research as a Process, Which Includes Several Stages. Respondents Forget Quite Often the Research Methods out of the Process.
- **Italy:** Most of the Respondents Mean Inquiry Based Research, a Search for Looking for Information, Analyzing it and Using Consistently but not the Methods of Academic Research

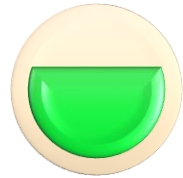
TLIT4U Comparative Study Findings and Open Questions: Self-Assessment



Bulgaria

In Bulgaria, Most Students Self-assess Themselves in a Positive Way, Marking that they have a “Good” or “Average” Level of Fluency.

However, Caution, in our Opinion, Should be Paid to Those Who Answered “Average Fluency”, as this is the Neutral Response Position Where one Cannot Assess How Well They are Able to Cope with the Challenges.



Finland

Finnish Students are Confident in Browsing, Searching, and Filtering.

Mixed Responses on Evaluating Data and Content.

Competence in Managing Data Varies; Some Have Poor Skills.

Strong in Communicating and Sharing but Less Confident in Digital Citizenship.

Self-assessment Highlights Gaps in Finnish Student Education.



Italy

Italian Learners are Confident in Finding, Managing, and Communicating Information.

Wide Proficiency in Creating Content and Security.

Lack of Confidence in Programming and Copyright Skills.

Not All Feel Capable of Reusing Information.

Conclusions

TLIT4U Project Will Create a Draft Conceptual Framework Based on Survey Findings.

This Framework Adapts the STEAM Model for Inquiry-based Learning.

It Aims to Address Different Perceptions and Training Approaches to Transliteracy and STEAM in Bulgaria, Finland, and Italy.

Educators Need to be Creative, Innovative, and Inspiring.

It Can be Adapted for Various Target Groups, Including Adults.

TLIT4U Project Will Develop an Innovative Game for Teaching inquiry-based Learning.

The Game Will be Used in Higher Education and Non-formal Educational Institutions.

Modern Education Should Shift from Memorization to Interactive, Personalized, and Results-oriented Learning.

Serious Gaming can Enhance Digital Fluency and Trans-literacy in Higher Education, Motivating Students to Apply Inquiry-based Learning in Their Research and Creative Endeavors.

Focus-group Results: Interrelationship Between the Concepts of “Information and Digital Literacy”

Bulgarian Experts

- “Building a System of Knowledge, Skills, Habits, as Well as a Level of Intellectual Development to One Person or Another, to One or Another Group of People”;
- “Information Literacy is the Basis of Digital Literacy - the Ability to Master Ideas, to Discuss problems, to Create”.
- **Recommendation:** Information Literacy Needs to Continue to be Part of Curricula and Training, Because “It is the Basis of Digital Literacy - the Ability to Master Ideas, to Discuss Problems, to Create”.

Finish Experts

- Students are Able to Use Different Digital Tools to Produce New Knowledge in Their Own Research (Bachelor and Master’s theses). They are Aware of Ethical Use of Information.
- They are Able to Communicate by Using Different Digital Tools.
- **Challenge:** All Teachers are Not Able to Integrate Multi- and Media Literacy Skills in Teaching.

Italian Experts

- Students are Expected to be Able to Identify, Use and Evaluate Resources, in Addition They Need to Communicate and Create New Resource Using Appropriate Technologies
- They Must be Educated to be Autonomous and Have Critical Thinking, for the Disintermediation of Access to Information

Focus-group results: Fake News Hot Topic

Bulgarian Experts

It is Necessary to be Significantly more Vigilant, more Rational and Logical, to Check the Primary Source of Information, to Look for more Data on the Subject, in Order to be able to Successfully Distinguish Reliable from Unreliable Information. Serious Attention Needs to be Paid to the Improvement of Digital and Media Literacy Skills, to Exercise Vigilance, to Increase the Skills of Critical and Analytical Thinking, to Successfully Search the Various Sources of Information and to Develop Reading Comprehension Skills, that Would Help Discover Facts Confirming or Refuting Specific Information.

Finish Experts

To Recognize Fake News, the Most Important Factors are Critical Thinking and Good General Education.

Italian Experts

Everyone Must be able to Recognize Fake News, Have Critical Skills and Analytical Skills.

Students Arrive Already with a Background of Knowledge and Skills, Derived by Prior Learning and Family Context.

Focus-group Results: Digital Safety

Bulgarian Experts

- Experts are of the Opinion that Librarians Have a Major Role in Building Skills to Safely Search, Find and Evaluate the Necessary Information, Adding that the Internet Provides Many Conveniences in Modern Life, but it also Implies Possible Risks.
- Recommendations: Librarians Need to be Reminded of the Basic Rules of Digital Safety. The Topic of Digital Safety Needs to be Included in the Curricula, but not Superficially, but Thoroughly Considered at Schools. Librarians Also Need to Prepare Trainings Focused on Digital Safety, Which are Aimed not only at Schoolchildren and Students, but Also at Older People Who are not Familiar with These Issues and can Easily Fall Into Vulnerable Situations.

Finish Experts

- Cyber Security is an Important Topic from Basic Education to Higher Education.
- Cyber Security is Highlighted in University Studies Especially in Teaching Research Skills the Formation of Such Skills in Users/Learners and What is it? (Property Rights, Anonymity).
- In Media Education Studies Security Issues are Taught as a Part of Digital Well-being.

Italian Experts

- Cyber Security Underestimated.
- Problem: Lack of Critical and Analytical Skills.

Focus-group Results: Most Important Skills that We All to Develop Successfully in Modern Society?

Bulgarian Experts

- Social Skills: Whether in a Traditional or Electronic Environment, the Types of Social Skills (Assertiveness, Empathy, Listening, Problem Definition, etc.) are Behaviors Effective in Social Interaction Situations. There is no Problem, no Matter How Simple or Complex, That Does not Involve Difficulty Interacting With Others Around Us.
- Emotional Flexibility: The Ability to Respond Adequately to Changes Without Disrupting Structural Integrity or Deviating From Our Goals.
- Cognitive Plasticity: The Ability to Think Outside the Stereotypes of Correctness, Which Leads to Better Flexibility, Adaptability and Increases Our Competitiveness.
- Literacy: Language, Information, Digital, Media, Financial and Many Other Literacies that We Can Acquire if We are Interested Throughout Our Lives.
- Team Working: Not All of Us Possess Innovation and Creativity, But if We Know How to Work Side by Side With Such “Bright” People and be a Good Support to Them, the Result Will be There. The World Needs Not Only “Discoverers”, But Also “Executioners” to do the “Donkey Work” of a Given Project.

Finish Experts

- University Teachers Accent Critical Thinking Skills as a Basis for all Other Skills. It is Important to Understand What is Internet and How it is Functioning.
- Everyone Has to be Able to Use Basic Digital Tools and be Aware of Security Issues.

Italian Experts

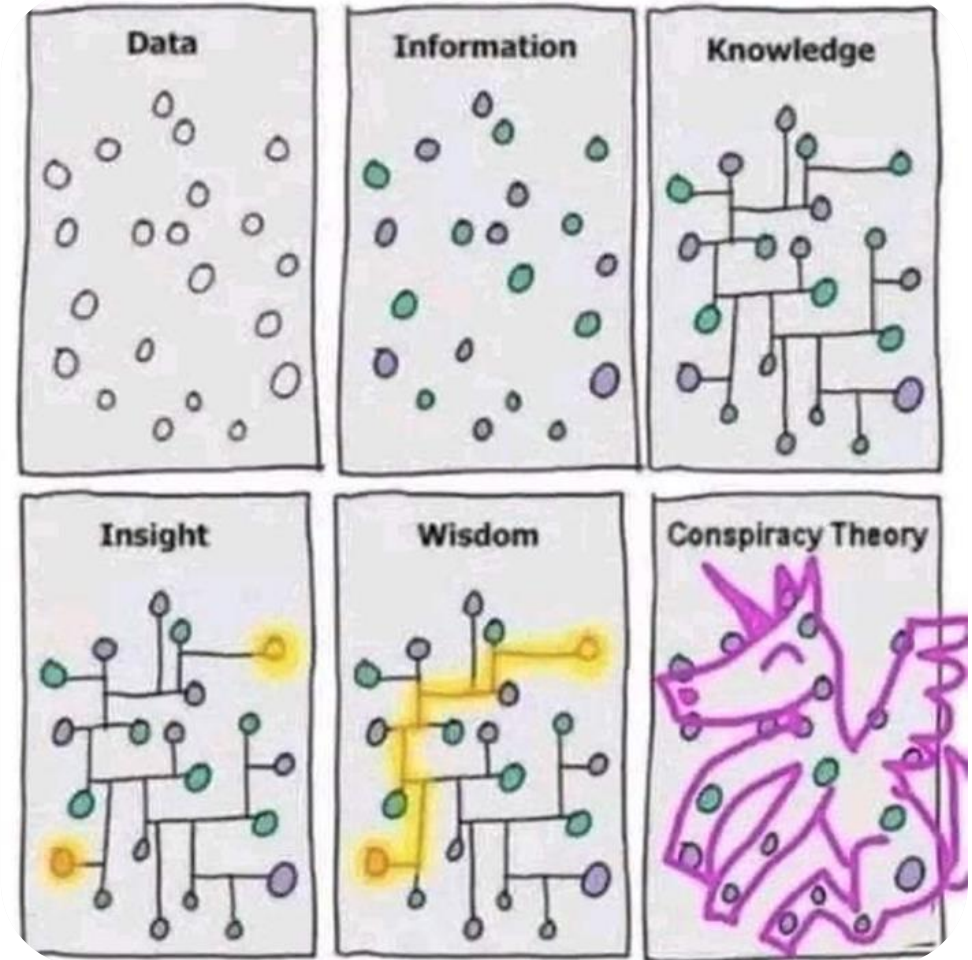
- Technologies Change the Way of Teaching, Stimulate Curiosity, Participation, and Active Teaching.
- Teachers Need to Know the Available Tools.

Why Design Thinking???

The Educators Possess the Knowledge and Wisdom, but They are not so Flexible and Often Skip Their Insight and Focus on the Educational Traditions and Practices.

The Students Can See the Necessity and Educational Needs in Different Shapes and Forms.

Both Approaches will Combine the Useful with the Pleasant for more Effective Education.



Final Results of the BG Workshop: GROUP 1



Goals of the Course

- Students Want a Course that Will Make them More Confident in Writing Term Papers and Theses, to Develop Skills on How to Search, Find and Evaluate Information, to Combat Fake News

Peer Assessment

- The Topics in the Syllabus are Quite Mixed, many of them Overlap and Need to be Reformulated. If the Program is Aimed at Students, it is Good for Them to Have Basic Computer Skills Earlier at School

Final Results of the BG Workshop: GROUP 2

MODULE 1



- Introduction of Digital Fluency Course
- Ability to Use Digital Technologies (Round Table Discussion)
- How to Use Online Data (Workshop)

MODULE 2



- Solution for Interactive Acquisition of Knowledge
- Verification of Information
- Practical Work with Text and Graphic Software
Work with a Shared Document.
- Following Instructions in the Online Environment

MODULE 3



- Media Literacy. Practical Work in the Ocean of Information
- Ready-made Solutions analysis
- Personal Project in Digital Fluency and Transliteracy

FINAL PROPOSAL



- Ask the Librarian Game

Goals of the Course

The Acquisition of Knowledge Related to Correct Processing of Information. Work with Widespread and Commonly Used Programs

Peer assessment

A Very Well-organized Course. Ask the Librarian is a Great Idea for Acquiring New Knowledge

Final Results of the BG Workshop: GROUP 3

1. • Introductions – What You Will Learn and What You Would Like to Learn (Survey)
2. • Basics of Presence in a Digital Environment - Browsers, Search Engines, Sites, Platforms and How to Work with Them Safely
3. • Registration in an Online Environment, Individually Chosen by Each Student, According to his/her Needs
4. • Personal Information Protection. Backing up Files and Passwords. Safe Web Browsing
5. • Online Purchases, Payments and Working with Banking Products
6. • Distinguishing False Information from Reliable Information. General Conditions and Transparency of the Page
7. • Presence in a Digital Environment for the Purpose of Professional Development. Filling out Documents and Using E-signature
8. • Individual Project

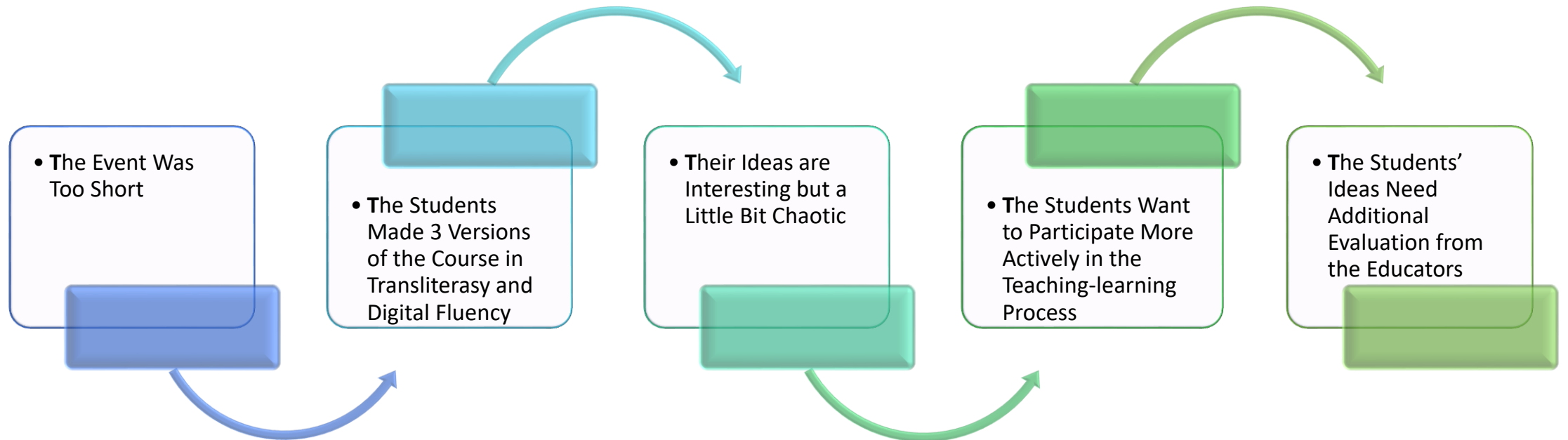
Goals of the Course

The Students Will Acquire Skills for Professional Development, Web-site Registration, Personal Data Protection, Awareness of Fake Sites and Ads, and How to Identify Them (Detect and Unravel). The Course Will Integrate Games to Distinguish Fake Content Through Visual Examples

Peer Assessment

No Comments

ULSIT Results of the BG Workshop



Thank you for your attention!

