



Data Understanding and Communication Knowledge and Skills for Trainers and Teachers in VET and HE

KA2 Strategic Partnerships - 2018-1-HU01-KA202-047809

NEEDS ANALYSIS, BEST PRACTICES AND TOOLKITS

* LESSONS LEARNT KIT #1 *

WHAT IS DUCK?

The DUCK project develops **online training modules** on Data Understanding and Communication to be implemented in CPD, VET and HE environments **to develop the skills of teachers and trainers** (and their students) **of analyzing and presenting data**, enriching their teaching practices and employability.

It is based on a detailed needs analysis and best practices report on the state of the art in DUC and especially DUC in continuous professional development field. The result is a thirty hours (three module) modular DUC course for teachers and trainers with guidelines of the methodological use and localization in English, Polish, Hungarian and Spanish.

Understanding and communicating data become critical for companies, and data scientists are becoming a very scarce resource, and lack of data communication and visualization skills, including data storytelling and infographics, lack of knowledge of basic tools to analyses and present data become a serious problem for the modern labour market.



The skills of the teachers and trainers to analyse and communicate data is not just a question of the quality and the presentation of their research: it is also important to note that this issue is not only concerns the data that they have to analyze for their research work but they also have to analyse data regarding their students and their students' needs.



KEY SKILLS to teach in the DUCK COURSE based on the needs analyses

PROBLEM ANALYSIS

How to ask proper questions and formulate problems?



DATA COLLECTION AND ANALYSIS

How to collect and analyse data?



COMMUNICATION

How to communicate your insights?



- IDENTIFY THE ISSUE
- STATE AND REFINE THE ISSUE
- PRECISELY DEFINING TERMS AND OBJECTS

- PREMISES AND ASSUMPTIONS
- REASONING
- ARGUMENTS ARCHITECTURE

- CORE COMMUNICATION SKILLS
- WRITING
- ORAL PRESENTATION

Diverse skills are best taught by diverse methods. Self-learning, online discussions and F2F discussion can be used, either as a primary modes or in union with others.

Be able to efficiently communicate conclusions in a „human“ language (e.g. storytelling)

Be able to visualize results in simple and nice form

EXPECTED RESULTS

Be able to use popular tools (like MS Excel) to identify the most important features of data sets

Be able to inference important and interesting conclusions from data analysis



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NEEDS ANALYSIS

based on surveys, interviews and focus group discussions

REPORT on Data Understanding and Communication

*Collated results from the country reports
from Hungary, Iceland, Poland and
Spain*

DESK RESEARCH

on national DUC training and education

BEST PRACTICES in DUC training

Collected examples of data understanding courses and initiatives from the participating countries

From the report:

Regarding policy level and practices, there are no specific policies related to training or up skilling for teachers, trainers and university professors regarding specifically data understanding and communication in ANY OF THE countries researched.

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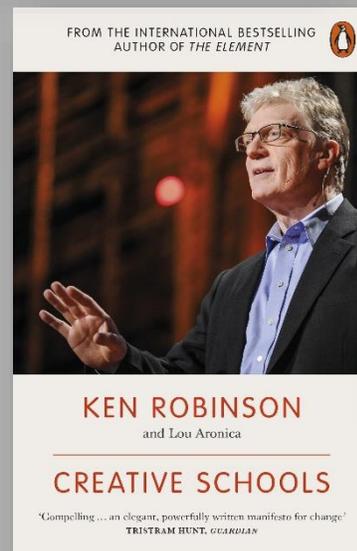
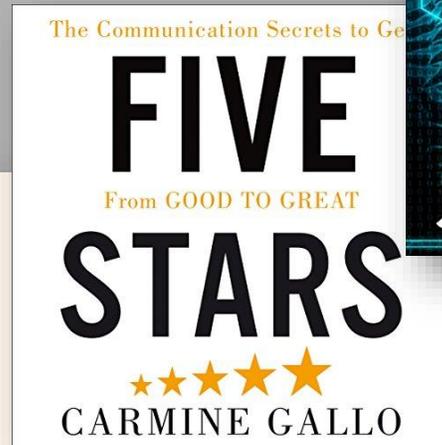
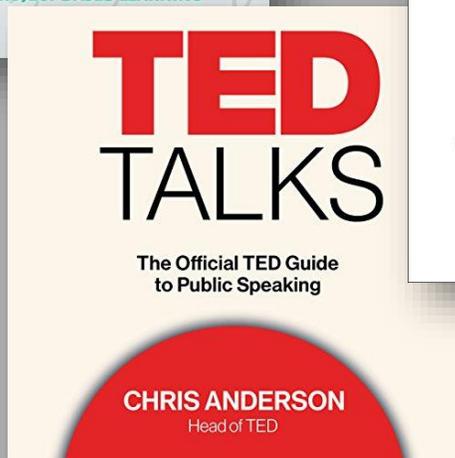
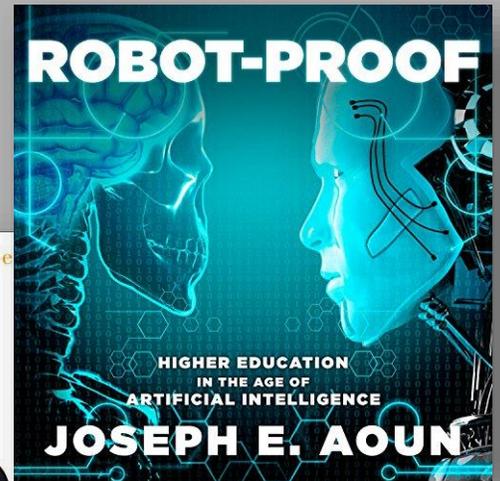
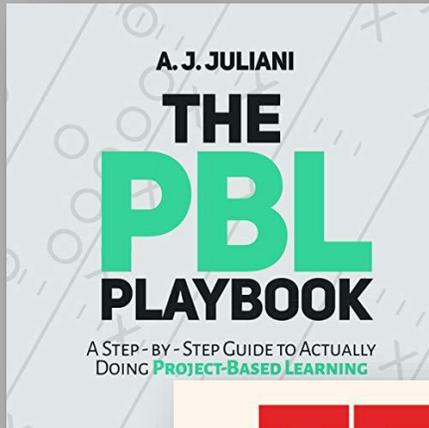
Teachers are expected to analyze and interpret assessment data and make various inferences and/or decisions based on the data (e.g., student strengths and weaknesses, appropriate interventions to implement). The underlying theory is that by informing with data decisions related to instructional goals, methods, and time allocation, teachers can better target their instruction to students, ultimately resulting in higher levels of achievement.

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[About the DUC course in development] “(make it) attractive for teachers and learners, (keep it) short and focused, (try to be) flexible, (make it) practical and connected to real life, and connected to teachers and students’ needs.”

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RECOMMENDED BOOKS, AUDIOBOOKS, PRESENTATIONS



[How to avoid death By PowerPoint](#)

by David JP Phillips

[Life After Death by PowerPoint](#)

(Corporate Comedy Video)

by Don McMillan



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