



Co-funded by the
Erasmus+ Programme
of the European Union



KNOWMAN

Create and diffuse knowledge pills

TAL
TECH



UNIVERSITÀ
DEGLI STUDI
DI PADOVA



4EXPERIENCE



National University of Political Studies and Public Administration

This knowledge pill examines how to create and diffuse Knowledge pill to transfer knowledge , which is an important part of effective knowledge management in organizations.

What is a knowledge pill (KP)?



Source: Pixabay
(<https://pixabay.com/vectors/drugs-pills-brain-capsules-tablets-3874188/>)

- a small unit of explicit knowledge in a multimedia format
- a technique for transferring knowledge through short factual batches of content
- help learners acquire specific pieces of knowledge or practical skill in a few minutes
- Creating KPs and making available for new hires will minimize the training time



Co-funded by the
Erasmus+ Programme
of the European Union



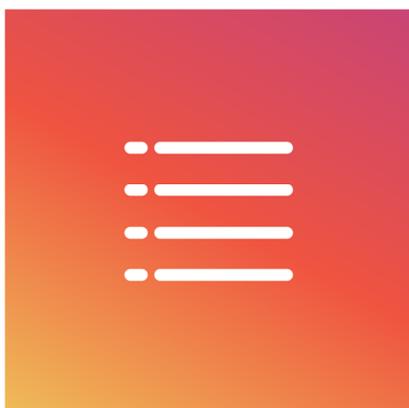
It becomes necessary to create a tool that enables the capturing of tacit or explicit knowledge in the organisation, placing it at the disposal of all the employees. This tool is the Knowledge Pill (KP), a small unit of explicit knowledge in a multimedia format to be used from the “just-in-time” training perspective.

It is a technique for transferring knowledge through short factual batches of content and help for improving your employee experience. When your employees have questions, they can easily access your knowledge pill and get the answers they need without having to reach out to or wait for your support team.

In education and vocational training, they can help learners acquire specific pieces of knowledge or practical skill in a few minutes, through a “microteaching” approach where learners are involved in active and interactive exercises.

Creating KPs and making available for new hires will minimize the training time. With written documentation of your processes, you can incredibly cut down on training time. New hires can be trained faster and more efficiently than if they had to learn from scratch.

What contents could a typical KP have?



- Title of the pill
- An introduction or a question
- A reply or required knowledge by the topic of the pill
- List of credits and sources

Source: Pixabay (<https://pixabay.com/vectors/list-icon-instagram-symbol-paper-1882326/>)



A knowledge pill isn't useful if people can't first find the right information, understand it, and apply it to their questions. The typical content of a Knowledge Pill is composed of:

- Title of the pill: a short and expressive title that should clearly identify the goal of the Pill, so that whoever reads it immediately understands whether this is the content that is needed.
- An introduction or a question: a brief introduction about the aim or the need for this pill or a question to be answered by this pill.
- A reply or required knowledge by the pill: in this main part of the pill, the person who has the knowledge responds to the question asked in a clear, direct and succinct manner or provide the main knowledge required by the topic of the pill. This part has to be supported with pictures, infographics or video clips to make it attractive and clear for the users.
- A list of credits and sources: the relevant information about who produced and supported the creation of the Knowledge Pill as well as the important sources for a further reading are given here.

Knowledge Pill formats



Source: Pixabay (<https://pixabay.com/illustrations/icon-file-extension-document-3329995/>)

- Multimedia presentation
- Audio
- Video

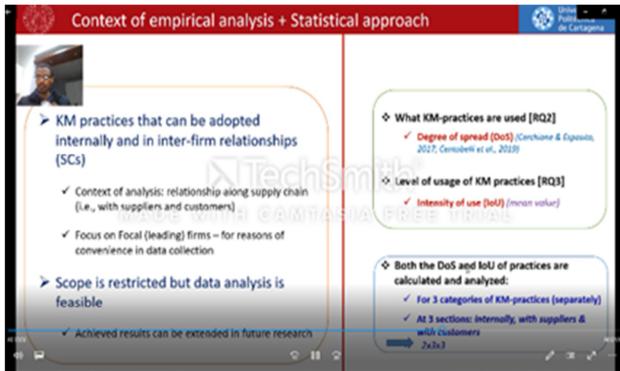
A knowledge pill can be prepared in a various possible formats, such as; a multimedia presentation, audio or video format.

Multimedia presentation format can be slide presentations in PowerPoint (which may, or may not, include a video of the narrator), Screen captures, or Texts in pdf and word format. Another type of multimedia presentation is Screen capture. It is the recording of a navigation in any application, with narration (with or without video from the presenter).

A knowledge pill in **Audio** format: A Knowledge Pill can have the format of an mp3 (or other) audio file, because it can be listened to on small mp3 players, car radios and mobile phones. This format can be well suited for explaining the reason for a procedure and even the steps of the procedure, if, for example, the listener has to do the various steps while in movement and have his hands and eyes free for the task.

Knowledge pill in a **video** format: It is a video capture of the performance of a task or of someone sharing his/her knowledge. The video format is very well suited for cases in which the learner has to see how to do a certain procedure, needing an explanation at each step by practice. For example, when on a production line, operation of machine or maintenance activity, the way to use the machines and tools is difficult to explain in a manual, and for that reason, most of the time the training is given on the production line, with more experienced workers explaining the procedures to less experienced ones. The company should record such explanations to have it as a knowledge resource that can serve as material for consultation and training of new employees. Video format knowledge pill can also be useful for motivating employees to see it carefully and get the required skill, because they can see the image of the knowledge person performing a task or explaining each of the steps and the results to be obtained in a specific work.

How to create Knowledge Pills in different formats: Multimedia presentation



- Multimedia presentation
- Audio
- Video

Slide presentation in PowerPoint using Camtasia Studio

Source: Authors' own source



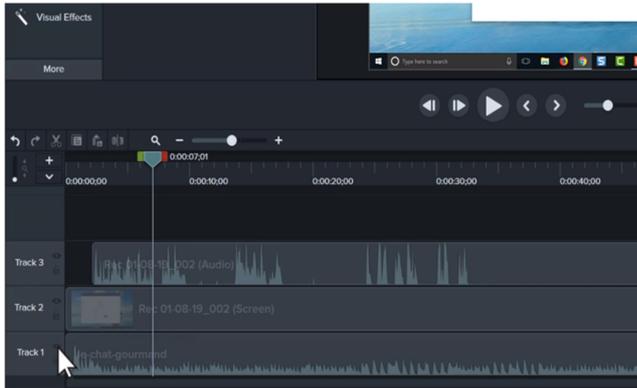
Co-funded by the
Erasmus+ Programme
of the European Union



To prepare KPs in a multimedia presentation format, first you need to prepare the script in slide presentations in PowerPoint. Then, using the slides, various programmes can be used such as Camtasia Studio (www.techsmith.com), Captivate (www.adobe.com) or Camstudio (<http://camstudio.org/>) to produce the pill in multimedia presentation format. The above picture shows an example of "slide presentation in PowerPoint created using Camtasia Studio" where a video of the narrator is included. To know further on how to prepare or write the contents of such pills, please refer the knowledge pill named "Document writing style".

In case of a multimedia presentation in Screen capture type, it can be prepared by directly recording of a navigation in any application, with narration (with or without video from the presenter). This type of Knowledge Pill may be very useful, specifically in cases such as; in explaining procedures to be used in any computer programme, to make clear to a customer or employee what the process is for inserting data on a certain site or to explain alterations to be made at a site.

How to create Knowledge Pills in different formats: Audio



- Multimedia presentation
- Audio
- Video

Audio editing using Camtasia Studio

Source: TechSmith (<https://www.techsmith.com/learn/tutorials/camtasia/editing-audio/>)



Co-funded by the
Erasmus+ Programme
of the European Union



The main steps to follow while creating a Knowledge Pill in audio format are preparing a script that is validated in advance before being read and recorded, record the script or directly the voice of the knowledge holder while he is at his workplace or in an interview, validating and editing the recorded audio. In case of preparing a script to be recorded, please refer the knowledge pill named “Document writing style” to know further on how to prepare or write the contents of such pills.

The main tasks to be performed in the editing phase includes: to eliminate periods of silence, to eliminate unnecessary content, and to raise or lower the volume when necessary.

For the production of Knowledge Pills in audio format, various types of equipment can be used such as; Computer for recording or editing audio, Microphone, Portable mp3 recorder. Also, there is a wide variety of software for editing audio for example, Camtasia Studio (www.techsmith.com), Audacity (<http://audacity.sourceforge.net>).

How to create Knowledge Pills in different formats: Video



- Multimedia presentation
- Audio
- Video

KP in video format created using “simpleshow video maker”

Source: Authors' own source



The main steps to follow while creating a Knowledge Pill in video format are more or less similar to the audio format mentioned previously. We prepare first a script that is validated in advance. Then, we will choose location with good lighting and no background noise and record the script or directly the video of the knowledge holder while he is at his workplace showing the procedures or in an interview mode. Finally we have to validate and edit the recorded video. In case of preparing a script to be recorded, please refer the knowledge pill named “Document writing style” to know further on how to prepare or write the contents of such pills.

Different types of video cameras with or without tripods and computer for video editing are the major equipment used for the production of KPs in a video format in situations where we are going to record the overall event or the knowledge holder while explaining a procedure or performing a task. We can also produce a video from a well prepared script about a specific topic or task using different video maker application software. This (picture) is an example of a KP in a video format created using simpleshow video maker where you can include a speaker, different pictures and subtitles to your video. There are also other variety of software for editing video such as Camtasia Studio (www.techsmith.com/camtasia) which is also used for other formats, iMovie (www.apple.com), Windows Live Movie Maker (www.microsoft.com), etc.

How to diffuse Knowledge Pills ?



Source: Pexels (<https://www.pexels.com/photo/woman-sharing-her-presentation-with-her-colleagues-3153198/>)

- Training sessions using the Knowledge Pills
- Organisational Knowledge Centres (Online and Offline)
- Using the possible technological supports
- Awareness actions for the use of the Knowledge Pills



Co-funded by the
Erasmus+ Programme
of the European Union



How to diffuse KPs created in different formats?

Dissemination is important process after creating and validating (user testing) the knowledge pill to make it available to users in a company. We need to check the degree of confidentiality and the target audiences for the Knowledge Pills before sharing it. Various diffusion methods can be used such as:

- Training sessions using the Knowledge Pills.
 - Design and creation of an Organisational Knowledge Centre (Online and Offline).
 - Using the possible technological supports (Intranet, Internet, google docs, dropbox, or physical supports like DVD, CD, etc...). When the content has no degree of confidentiality, used also for external users, it can be diffused via open sites, or social media outlets like YouTube, Facebook, LinkedIn, etc.
 - Training and/or awareness actions for the use of the Knowledge Pills.
- The company must also ensure that employees or new hires can effectively access the knowledge pill that has been created or shared, whether through search, alerts and recommendations, conveniently placed links, organizational knowledge centres or other mechanisms.

Final tips: precautions in creating KPs



Source: Pixabay (<https://www.pexels.com/photo/clear-light-bulb-placed-on-chalkboard-355952/>)

- The use of different multimedia formats
- Content wise: concise, target on specific issue and clear to understand and listen
- Simplicity, easy to create and to distribute
- Short: Knowledge Pill should take less than 5 minutes to watch
- The person who has the tacit knowledge should be directly involved
- There should be management support for the use of KPs methodology

As mentioned, a Knowledge Pill is a piece of knowledge packed in multimedia format and made available to everybody that needs it, but the following main precautions to take or key elements should be respected in creating Knowledge Pills in multimedia format.

- The use of various multimedia formats (presentation, audio, video). But, the use of narrator's video should be made only when it is strictly necessary, to avoid large files and unnecessary distractions. Also, the file format should allow the videos to be properly viewed on the selected supports.
- Content wise, it has to be concise, target on specific issue and clear to understand and listen the recorded sound/video.
- Simplicity, easy to create and to distribute. Before starting the recording, have a very clear idea of what you want to explain, why, and who it is intended for.
- To make it short to prevent loss of concentration in the listener. It is advisable that a Knowledge Pill should not take more than 5 minutes to watch.
- The person who has the tacit knowledge should be directly involved in creating the pills but it is necessary also to ensure that the validation of the content is always done by someone who was not directly involved in the creation of the Knowledge Pills being validated.
- There should be management support for the use of KPs methodology, so people in charge of knowledge management, HR and training should be involved.

Generally, KP as a KM methodology, helps employee with special learning difficulties, creates a Learning Organisation, increases the level of the technological literacy of the employees through a more active use of technology, and reduces the costs of training, while increasing its efficiency at the same time.

Sources and find out more!

- Bolisani, E., Scarso, E., Zieba, M., Durst, S., Zbucnea, A., Lis, A. M., & Kassaneh, T.C. (2022). Knowledge pills in education and training: A literature review. In Proceedings of the 23rd European Conference on Knowledge Management. <https://doi.org/10.34190/eckm.23.1.796>
- Jessica G. (2022), Quick Start Guide to Creating a Knowledge Base in 6 Steps, accessed from <https://www.helpscout.com/blog/creating-a-knowledge-base/>
- Knowledge Pills Methodology: Knowledge Mediator Manual (2011), ver. 1.0 https://ec.europa.eu/programmes/erasmus-plus/project-result-content/350e24a9-e673-47c2-8282-5d8d5345f535/KNOWLEDGE%20PILLS_MANUAL_EN.pdf



KNOWMAN

More about the project:
knowmanproject.eu

This project has been funded with support from the European Union. This document and all its content reflect the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.