In order to integrate technology successfully into their daily practice, teachers need adequate training and support in how to use the tool communicatively, to be aware of strategies and procedures for designing effective IWB materials, and to have the opportunity to reflect on their own practice. iTILT provides teachers and teacher educators with a platform to do this through its project website which includes training materials and teaching practice:

- **iTILT video resources** providing examples of over 250 classroom activities
- **the iTILT training manual** in six languages
- **iTILT teaching materials** for several languages, levels, and ages
- **iTILT library** with links to IWB material collections, IWB literature, information on copyright and much more.
- an online community of educational experts and language teaching practitioners are sharing their IWB experience and materials.

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For more information on the partners please go to [http://www.itilt.eu/partners](http://www.itilt.eu/partners)

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Introduction

iTILT stands for Interactive Technologies in Language Teaching, and is a European project which aims to explore effective use of the interactive whiteboard (IWB) for communicative language teaching. Interactive whiteboards may look like normal whiteboards, but they can facilitate the integration of new media in the language classroom, enhance learner engagement, support new electronic literacies and meet the needs of students with diverse learning styles. If used well, IWBs can significantly transform the language classroom. For this to happen, language teachers need to be given adequate training and support in how to use the tool communicatively, to be aware of strategies and procedures for designing effective IWB materials, and to have the opportunity to reflect on their own practice. For more information on the project please go to www.itilt.eu

This handbook is a training manual aimed for modern foreign language teachers who work with interactive whiteboards in their classrooms. The educational contexts vary from primary and secondary schools, to vocational colleges and universities. The given examples, organized around the four skills, speaking, listening, reading and writing and vocabulary and grammar teaching, should support the teachers to exploit the potential of the IWB and help them to teach in a communicative and task-based way. They are based on a set of criteria of task-design for IWB materials which can be found under the heading IWB based material. The examples should be seen as teaching ideas that can be adapted to suit the target context. The task-based language teaching (TBLT) approach is an essential part of the underlying theory of the communicative approach to language teaching (Richards & Rodgers, 2001). Task-based language teaching is an extension of the communicative approach which includes goal-oriented activities and a focus on grammar in a meaningful context.

In this document we use the definition of pedagogical tasks put forward by Nunan (1989), i.e. “a piece of classroom work which involves learners in comprehending, manipulating, producing or interacting in the target language while their attention is principally focused on meaning rather than form.” The TBLT framework developed by Willis (1996) consists of three phases: pre-task, task cycle and language focus. In the pre-task phase the students are introduced to the topic with the help of related material and vocabulary and the task cycle allows them to use whatever language they already know to complete the task. The teacher guides and supports the learners through the planning stage before they report and compare the task outcomes. The language focus stage of the TBLT framework allows the learners and teacher to focus on specific features of the language used or produced during the task cycle and leads to language practice.

In this manual we provide some examples of activities and tasks based on the TBLT approach to support teachers with the use of the IWB in their communicative foreign language classroom. Producing helpful IWB training materials for language teachers and informing teachers of effective uses of the IWB for communicative language teaching...
based on research are two important aims of the ITILT project. Since the project wants to bring together teachers from all sectors (primary, secondary, tertiary and vocational) of education, the material is designed for various target groups.

The manual is organized around the four skills, speaking, listening, writing and reading and includes additional material for vocabulary and grammar teaching.
General Tips on How to Make the Best Use of Interactive Whiteboards

An interactive whiteboard is basically a touch sensitive surface, which is connected to a data projector that allows a large scale computer screen to be displayed. All applications on the computer can be controlled by touching the IWB with your finger or an electronic stylus. Most boards are accompanied with specific software that provides electronic flipcharts and a range of tools which enable numerous activities. The flipcharts are blank pages for the creation of teaching material or for spontaneous use in the classroom to annotate or display various materials. They can be turned backwards and forwards and provide an unlimited amount of writing space. All flipcharts including the annotations can be electronically stored and reused.

The software tools include for example pens for writing or drawing or highlighting in several colours, handwriting recognition, dragging and dropping of objects or text, hiding and revealing, creating snapshots, using the web browser or designing interactive exercises. Furthermore, the IWB functions as a "digital hub", enabling the teacher to integrate other information and communication technology (ICT) into the lessons. The IWB eases the way to include multimedia resources like video and audio files, pictures, flash games and web-based material. Consequently, the technology opens up new ways and supports the teacher to create an authentic and stimulating learning environment. (Cutrim Schmid & van Hazebrouck, 2010) The IWB software tools and specific technical vocabulary is explained further in the attached glossary.

This section gives some general information and tips on how to use the IWB in a foreign language classroom, including how to organize your classroom, where to install the board and what to think of when designing or presenting IWB material.

Classroom organisation

When thinking of a good place for installation of the IWB, several factors need to be taken into consideration. The boards should be installed appropriately for the learner group. This means that younger learners need to be able to reach at least half of the screen from the bottom in order to participate in an IWB focused lesson. Concerning the visibility, the IWB should be installed centrally in the classroom so that all learners are able to see the whole screen. Sunshine or extensive lighting could interfere with the visibility of the display. Dark, fully closable curtains or blinds are often necessary and lighting systems sometimes need to be adjusted.

It is necessary that the IWB is accessible from all sides for the students and the teacher. Since the IWB displays the computer screen and allows operating the programs directly on the board, it is not essential to keep the computer close to the IWB. Remote keyboards are helpful when larger amounts of text need to be typed. These keyboards can also be passed to the students, which is time saving, since they do not have to come up to the board or the computer each time to type in text.

Organising the materials on the computer

When preparing material for lessons, the files should be organised in a systematic way. Some teachers find it helpful to create folders for each class, topic and lesson; others prefer shortcuts to the files on their desktop. To transfer the work from home to school, the files can be saved on flash drives/USB memory sticks or any other storage devices. Personal laptops could also be used. In this case, the board often needs to be calibrated after it is connected since the setting of the display may differ from those on the school’s computer. The calibration ensures that the image on the screen is synchronous with that of your computer, so that the mouse clicks with stylus or finger work accurately.

In order to save or share files the school’s network can be used. This is especially helpful when a certain amount of material has been collected and is then accessible to all teachers. Materials can be used as a starting point to get new ideas or changed according to the target group or topic. There are also other possible ways of organising and sharing one’s content, e.g. on IWB community websites like promethean planet, smart exchange, hitachi starboard and others.

When using websites during the lesson, it is advisable to create a folder under favourites to avoid typing in or continuously searching for websites during the lesson. Another possibility is to open the websites at the beginning of the lesson and minimize them to the bottom task bar. A further option is to create hyperlinks in the documents or flipcharts that are used during the lesson.

Getting started – aspects to think of

A good starting point for many teachers is to use familiar software for the acclimatization phase, like PowerPoint or MS Word. In this phase the IWB is often used to show video clips, play audio files or display ready-made material. The IWB works very well in conjunction with language learning software. However, it is very important to become acquainted with the IWB software in order to design material and use the board to its full potential during the lessons. Teachers should familiarise themselves with the tools in order to customize the toolbar according to their needs. A foreign language teacher, for example, needs probably more colours, or the handwriting recognition tool in the tool bar, but not the calculator and the measurement tools.

General tips

The calibration of the IWB (if needed) should be done before the lesson and could be delegated to the learners – the responsibility for the calibration can be changed weekly and seems to be highly motivating.

- The position in front of the board is crucial. Teachers should make sure to face their students or move away quickly from the board when the task is completed to prevent causing a shadow.
- When creating material for the IWB, all the rules of good teaching still apply. Appropriate font and size of written text should be used, so that the content of the flipchart is also visible from the back.
- Colours should be used to emphasise meaning or to de-
fine certain traits, but should not be overused.

- Blank spaces for comments, notes or new vocabulary should be allowed on the flipcharts.
- The remote control of the data projector should be used to freeze the screen or to blank it.

Materials and resources should always be shared among colleagues and other teachers. Towards the end of the document, links to websites can be found, where flipcharts on single lessons, topics or units can be downloaded and uploaded in order to share it.

Additional devices

When installing an IWB make sure to connect speakers in order to use sound files in your lessons. Additionally you should connect a printer, a scanner or a visualiser/document camera in order to share student generated content or objects. Do not forget to connect the computer with the IWB via the USB connection. Visualisers (see figure 1) can be very helpful when using three-dimensional objects or hand-written documents which should be displayed on the board. The document cameras are connected to the IWB technology and allow the visualisation and exploration of documents or objects on the large screen. The object or document to be observed is simply placed under the camera. The teacher can then work with live view or take a picture which can be annotated, saved and printed if necessary. Some board manufacturers offer voting devices and slates for the students which are directly connected to the IWB. Learner response systems, like Promethean’s ActiVote (see figure 2), which need to be purchased additionally, enhance the interactivity and participation of the students since they can be directly involved in decision making or respond to questions. It gives especially shy or insecure students the chance to be included in the lesson or contribute to it, since they do not have to speak up, which often takes a lot of courage.

IWB Based Material

![Image 1 - Document camera from SMART™.](image1)

![Image 2 - Voting system from Promethean.](image2)
Design/Evaluation/Implementation and Copyright Issues of IWB Based Material

Criteria for the Design/Evaluation/Implementation and Copyright Issues of IWB Based Material

When designing material for IWB lessons, certain questions need to be raised: Are the activities communicative? Are the goals clear? Will the learners learn (and not just have fun)? Will the teacher’s preparation time be worthwhile? Can other teachers easily use the files? Is there enough audio-visual input (but not too much)? Are the IWB tools used well? Is there space for learners’ contributions? Are resources copyright-free or authorised?

In the following we list criteria for the design of IWB based material for the foreign language classroom.

1. Activities or tasks should be designed around a real-life context and should have a clear communicative purpose.
2. Flipcharts should support teachers in setting the context for language learning activities, in motivating learners and in providing linguistic and cognitive support for the achievement of clearly defined language learning goals.
3. The main purpose for the design of IWB-based materials should be to enhance target language learning and not just for the sake of making the lessons more interesting and fun. In other words, they shouldn’t be only learner-centred, but also learning-centred.
4. When designing IWB-based activities teachers should measure the personal cost of integrating the IWB against its return and its efficiency. In other words, they should ask themselves whether the same activity could not be implemented more easily via other means.
5. Flipcharts should include instructions on how they should be used and for which purposes. A brief explanation of the purpose of the activity, language learning goals and how the activity should be implemented can be collected on an overview page at the beginning of each flipchart. This way, flipcharts can be more easily shared with others.
6. Flipcharts should contain a good amount of visual, audio and tactile input (e.g. embedding of audio, image and video files). However, it is important to balance the amount of stimuli presented in order to avoid cognitive overload (e.g. adding too many images to one page).
7. IWB software tools should be appropriately used to add elements of physical and cognitive interactivity to the materials (e.g. drag and drop, hide and reveal tools, point and click programming).
8. Flipcharts should allow space for students’ contributions and ideas in order to allow adequate room for learner experimentation and discovery. For instance, by including opportunities to redirect instruction and/or content based on learner feedback, and the inclusion of open-ended questions.
9. Flipchart design should also encourage learner autonomy, for instance by including links to web resources that students can use out of the classroom independently and by making clear reference to language learning strategies and important study skills to be used by learners in the new information age.
10. Flipcharts should only include copyright-free materials, unless permission for publication has been provided by copyright holders. In what follows we provide more information on copyright issues.

Copyright Issues

In order to design material that is safe to upload and share with the public you should bear some issues concerning copyright in mind. First of all, you should familiarize yourself with the copyright law. When searching for materials like pictures make sure to check under which license the pictures are protected. Do not assume that if there is no copyright symbol the material is not protected. Also you should not assume that if you credit the author of the material that you are on the safe side. You will need an explicit permission of the author or owner of the material you want to use. A good alternative is to use material that is listed under public domain or a creative commons license. Works that are in the public domain are not restricted by intellectual property rights, e.g. expired copyright or dedicated works like documentaries. Creative Commons licenses help to share and reuse material in a safe and legal way. Websites like flickr.com or commons.wikimedia.org offer a variety of pictures licensed under various creative commons licenses. There are also songs, sound files and videos that can be re-used under a creative commons license.

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ers to download the work and share it with others as long as they credit
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Further information on this can be found on creativecommons.org

Criteria for the Implementation of IWB Based Material
The final section of this chapter is on the implementation of IWB based material in the
foreign language classroom. The IWB should not be used for its own sake, but to enhance
learning in a communicative foreign language classroom. Therefore teachers need to
know how to manage the class and activities effectively. The question is: Can the teacher
easily integrate IWB work with other class activities?
1. Teachers should be able to manage interaction around IWBs in a way that all learners
are provided with opportunities to become actively involved in the learning process:
2. Designing materials that engage all students and not just the one at the board
3. Use of printed copies of IWB displayed materials for annotation or manipulation
4. Encouraging and supporting reflection-in-action during IWB based activities
5. Encouraging peer evaluation during IWB-based activities
6. Teachers should be able to coherently integrate various multimedia re-
sources in their IWB-based lessons, by considering issues of pace, cogni-
tive load and learners’ active processing of IWB-based materials.
7. Teachers should be able to make the right judgment regarding when to use the tech-
nology and when not to use it. Teachers should not forget the traditional repertoire
they possess, for example the use of real objects, physical activity such as miming, role
plays, pair- and group work activities.
Teaching Speaking with an IWB

Using the IWB to Encourage and Support Target Language Speaking

The IWB as a ‘presentation tool’ is often the first impression teachers have when they are introduced to the tools and functions of this technology. However, teachers can also use the IWB in a communicative and productive way to enable learners to interact with the board to produce language. Communication is the main goal of foreign language teaching and starts even in young learners’ education: “We want children to be able to use the foreign language with real people for real purposes” (Cameron 2001:37). However, discourse does not only appear in real interactions, but we can also create opportunities for genuine interaction in the classroom.

The IWB can support teachers and students in the process of learning the spoken language by balancing the task demands and supporting learners with visual aids. In the following examples the IWB is used in whole-class activities, but also in pair work, in which the IWB supports ‘free language practice’ in small group or pair work activities. This could be part of ‘station work’, in which the IWB is only one station among others. In station learning a subject area or topic is divided into different sections and distributed to stations that are approached by the students in small groups or pairs. Several students are working on different stations. At these learning stations prepared material is available to support the particular aspect of the topic. Learning occurs independently with the teacher monitoring the events in the classroom.

Another possibility is to use the IWB screen as a framework for a pair work speaking activity which includes visual support but no manipulation of the IWB by the students.

Visual support for storytelling and role plays

The IWB can be used as an important tool in storytelling, especially if the teacher wants to make sure the learners participate actively in this process. Students can compose role plays and stories by adding characters, backgrounds (from the resource library), recording voices and adding sound effects. The software provides a resource gallery with maps, pictures, diagrams and audio files which can be searched and dragged and dropped to the electronic flipchart.

Storytelling can be implemented in different ways. One possible way is the teacher telling the story in the front. In this scenario, the whiteboard can be used to involve the learners in the process of storytelling, by encouraging them to make predictions, describe the pictures, answer questions, and annotate on the screen. The IWB enables the projection of a larger picture on the screen and can therefore help to involve the students and increase their participation in an easier way. Moreover, the IWB can be used to teach speaking/writing through storytelling by involving the students in the creation of new and/or adapted stories. They can, for example, change the storyline, predict the content or create dialogues for the stories told by the teacher. This way they produce new and authentic language in a motivating and independent way. In the example below, the students create dialogues for the Little Red Riding Hood story. They can use background templates, add shapes, draw trees, add characters from the IWB software resource library and insert speech bubbles (see figure 3). Another possibility is to involve the learners in speaking activities with prepared material. In the example shown in figure 4 the students have to drag and drop the characters from the box into the picture and create or repeat oral dialogues.

Linguistic support for pair work and group work

The IWB can be also be used to provide support for language production in pair and group work. For the practice of specific grammatical structures (controlled practice) the teacher can use the IWB to provide the context, framework and linguistic support for pair or group work activities within a task cycle or station work. In the following activity...
the students are working in pairs to practise the superlative of three-or-more-syllables adjectives.

Figure 5 - Superlatives - Framework and language support for pair work.

In the following activity, the IWB is being used for a 'free practice' pair work activity entitled 'Wish you were here'. The students then take turns to describe the landscapes with the help of the words and expressions provided on the screen. One student has to close his eyes and try to create a mental image of what is being described.

Figure 6 – Wish you were here (©Daniel Martin) Framework for speaking activity with linguistic support.

Platform for carrying out speaking games

Another good example of a free-practice activity that could be supported by the use of an IWB is the ‘picture domino’ game which could be carried out by the whole class. Students have to drag pictures to the centre of the screen and find/explain the relationship or connection between the two pictures. The students can associate freely and find new patterns with every picture.

The following activity could be part of station work, with a focus on questioning with do/does or the verb to be. The ‘white-out effect’ is used to support the implementation of a guessing game entitled ‘Who is the celebrity?’ Therefore flipcharts need to be created with pictures of celebrities on a back layer of the flipchart. The pen tool is then used in the same colour as the flipchart, mostly white, to create a layer on top of the picture. This drawn layer can then be gradually removed by the eraser tool or the magic ink tool. During the station work the learners come up to the board in small groups. One student takes over the role of the tutor or moderator who knows the famous person behind the white layer. The other students can ask up to 10 yes-or-no questions. After each question a small part of the white layer is removed to reveal the picture underneath it.

Figure 7 - Picture domino (©Daniel Martin).

Figure 8 - The White-Out effect consists of using a thick pen on white to hide words or pictures. The eraser tool or magic ink is then used to reveal the text or image again.
Teaching Listening with an IWB

There are different skills a learner has to accomplish when listening to texts. It depends on what you listen for; for example, the difference in listening to a story or to an announcement from a speaker at the train station. Listening involves picking pertinent details out of the speech stream or predicting, guessing or making assumptions. It is an important skill since perception often precedes production in language learning.

Teaching listening with the IWB allows you to integrate a variety of resources, including authentic material. It enables you to work directly on the same device without having to switch from one to the other. Most IWB software eases the process of integrating sounds, mp3 files or videos. Since it is connected to a computer, the CD drive can be used to play CDs or DVDs or files can be brought on portable flash drives (e.g. USB sticks or other external drives). The IWB can even be used for web-based materials, video-conferencing or to record voices and replay them. All of these materials can then be used for several listening activities to enhance the acquisition and improvement of the different listening skills. Following the TBLT approach, listening should be taught with pre-, while- and post-tasks to support the comprehension process.

Listening activities with the IWB

Listening can occur at various stages of the lesson. It can be a starting point to a new topic or additional material to an ongoing unit. Some lessons might have listening training as their main focus. Listening material can thus be used for practicing the above listed skills or stand for itself as a source of information. The IWB helps the teacher to integrate various sources of listening material, either pre-recorded, live interviews or online material.

Pre-Listening phase - predicting the content

The IWB can be used in the pre-listening or pre-viewing phase to set the context, introduce new vocabulary and support students’ prediction of the content. Since it also includes oral production by the students, it could be also listed as a speaking activity. If the teacher is working with a digital video, she could, for instance, make snapshots of different parts of the video (by using the camera tool) and then show them on the IWB screen. Suitable films and documentaries can be found under a public domain license and are therefore copyright-free. If the teacher uses copyright restricted material, it should only be used in one’s own classroom to respect the copyright. The students could then talk in pairs about what they think the story will be about.

Figure 9 - Making predictions with the use of snapshots (Public domain film: Sherlock Holmes and the Woman in Green, 1945).

While-Listening phase – listening for gist

This popular technique for understanding the gist of a story, actively involves the students. Not only do they have to listen for the gist, but they must also make predictions. The story, in this example, Little Red Riding Hood, can be read out by the teacher or published listening material can be used, like audio books. The students are then asked to put the pictures in the order in which they hear them. They can talk about their predictions in small groups and then discuss the order of the pictures in the whole class setting.

Figure 10 - Rearranging the pictures with the drag and drop tool. Pictures from www.unterrichtsmaterial-schule.de
While-LISTENING phase–listening for detailed information

Another activity for listening with the help of the IWB requires the skill of listening for detailed information. Ask your students to listen to directions given to use the New York City subway to get from one station to another. The pen tool can then be used to show the different routes you have to take by annotating a NYC subway map. The screen recording tool of the IWB software can also be used to follow the drawing in order to re-examine the way that has been taken.

Figure 11 - Use of the page recording function and the pen tool.

Post-LISTENING phase–response to comprehension

In the following activity the learners listened to a text about Feng-Shui and were then asked to work as a group and apply the knowledge they acquired during the listening comprehension activity to rearrange a room according to the principles of Feng-Shui. They can delete objects or use the drag and drop function to move them around.

![Feng-Shui](image)

Figure 12 - Feng-Shui © ACTIVLINGUA.

Other Activities: Interviews via video-conferencing

Live interviews are very motivating, especially when the students are allowed to ask the questions themselves. In this case, they are really interested in the given answer and listen for detailed information. Depending on the topic, live listening to interviews could involve the skills of predicting, listening for specific information and listening for detailed information. It also includes language production, if the students are asked to formulate and ask the questions themselves.

Using video-conferencing in connection with the IWB, allows you to integrate live-listening activities in your classroom. The conference or phone call can be recorded and replayed with the help of the IWB software and a microphone. Possible questions for the interview can be collected on the IWB with the help of the pen tool, handwriting recognition or the floating keyboard. Even during the interview, notes can be taken on the IWB. The IWB adds extra value due to the fusion of the different programs without the need to switch from one to the other.

SMART has video conferencing software called Bridgit™. It allows you to engage with others and collaborate with local or remote classrooms by sharing screens and interacting with each other’s documents. Other video-conferencing and collaboration software can also be used in conjunction with the IWB. Examples of those other software are: Skype1, elluminate2, WizIQ3 or Adobe Connect4, just to name a few.

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1 [http://www.skype.com](http://www.skype.com)
2 [http://www.elluminate.com](http://www.elluminate.com)
3 [http://www.wiziq.com](http://www.wiziq.com)
Teaching Writing with an IWB

Writing as a skill is not about writing down vocabulary or grammar practice but about writing as a process of language production, addressed to a specific audience with the intention to write about a certain topic and choosing a particular style. The Council of Europe distinguishes between three different classifications of writing: a) written interaction, such as notes, correspondences or computer-mediated discourse, b) written production, including articles, creative writing or filling in questionnaires and c) written mediation, such as summarizing newspaper articles or similar tasks. (Council of Europe, 2001)

E-Mail projects

The writing process involves many different steps, including generating ideas, planning the text in regard to the audience and it involves the revision of the text. The IWB can help to support the writing process in various ways. One way is to share student generated products in the form of an email. Cutrim Schmid mentions in her article about ‘The Pedagogical Potential of Interactive Whiteboards 2.0’ that “the IWB has been described as a digital platform for a) modelling ICT skills, b) collaboration and c) sharing ICT-based pupil-generated work.” (Cutrim Schmid, 2009: 502). A written interaction task such as an email project is genuine and motivating. Email exchange can be established and can occur between the students and another class of foreign language learners or between the students and native speakers of the target language. The IWB in conjunction with the internet allows an authentic approach since teachers can access an email account to clarify the terms they are using (e.g. subject line, CC/BCC, recipient). The teacher can ask the students to write an email about a certain topic to a class-email address which can be easily installed and is mostly free of charge. The emails can then be shown on the IWB screen and assessed by the whole class. Feedback and corrections can be made by annotations which can be applied by the IWB software with the help of the pen or highlighter tool. The emails with the annotations can then be saved, converted into a pdf document and printed for the students to make their alterations. There is also a possibility to add all materials to the resources in the local virtual learning environment.

Coached writing

Cameron (2001) suggests, among other approaches, the need to focus on text structure to learn conventional formats for different types of discourse. Teachers can use the IWB to coach the writing process of their beginning learners. They can create a writing skeleton that can be easily copied onto as many pages as they like and used individually by each student. The topic can be either part of the broader context of the syllabus or something related to the students’ interest or recent activities. Writing skeletons can also be used to produce poetry. Depending on the students’ language level, keywords can be added, which could be dragged and dropped to the correct spot. The background can be changed according to the context.

Written mediation - writing dialogues

In order to teach writing and mediation skills, bubble stories can support learners with the writing process. In an advanced classroom, students could be provided with a newspaper article or blog entry on a current issue. Another possibility is to use material from the course book. The students are then asked to mediate the information they received and implement this in a written exercise on a provided worksheet. They can work in groups and distribute their suggestions to others to read for peer assessment. The students vote on the best mediation which can then be used to fill in the speech bubbles on the flipchart on the IWB. Activities like this can also lead to the creation of whole photostories or comics, which can then be displayed and peer-assessed on the IWB. Storyboard software like Kar2ouche works really well in conjunction with IWBs.

Figure 13 – Writing skeleton.

Figure 14 – Students summarise the given information and create a dialogue between two people.
Teaching Reading with an IWB

Reading involves several sub-skills, including general world or topic knowledge and linguistic knowledge such as semantics, morphology or syntax. However, teaching reading also includes the teaching of reading strategies. The Council of Europe (2001: 68-69) claims numerous examples of reading activities, in which “the user as reader receives and processes as input written texts produced by one or more writers”, such as: reading for general orientation; reading for information, e.g. using reference works; reading and following instructions; reading for pleasure.

The language user may read for gist; for specific information; for detailed understanding; for implications, etc. For most of those activities, the language learner has to be supported by reading strategies which can be taught with the help of the IWB.

Make predictions/ activate background knowledge

When reading a text, students should become curious about the text to build up expectations. A pre-reading task can support the students to be aware of their predictions which might interfere with their understanding of the actual text. In the case of a novel or short story teachers can work with the book cover or title of the story to activate the students’ background knowledge or ask them to make predictions about the content of the story. The IWB provides the teacher with the opportunity to show the book cover and annotate directly on the flipchart and save the predictions for later use to test them against the actual texts. The actual task is a simple silent impulse, provoked by the cover of the book. With the help of the IWB the teacher can display the picture and additionally use the pen tool to write on the IWB. The colour of the pen can also be changed to group words that belong to different semantic fields. The students brainstorm on the possible content of the book.

Support of the reading process through charts

To support the students during instances whereby they are required to take in large amounts of information that occur in the reading process, charts or mind-maps can be created with the IWB, which can then be saved and revised during the reading process. The IWB allows teachers to draw shapes or arrows with the shape tool or a special pen that recognizes shapes when drawn by hand. This way the teacher can add the characters once they appear in the story and connect them with the others. Moreover, nicknames or labels can be added in order to characterize the individuals from the novel. Different colours can be chosen when drawing the cluster to highlight the various kinds of relationships, like love, family or friendship.

Encouraging reading and association through visual support

The task to create a reading image aims to encourage the students to engage with the story and to help them to understand and relate to the characters. Additionally, the students are involved in the task-process. The possible while-reading task could involve the design of reading images in form of electronic flipcharts which are independently created by the students. This task furthermore aims to enhance media literacy and presentation skills, including oral communication. While reading the novel, the students can choose a character they would like to follow throughout the story in a more intense way. The students would then pay closer attention to this character’s features when reading the chapters and take notes on essential information. They are then asked to work in groups to create a reading image with the help of the IWB software and resources which can be found on the internet. Reading images are posters or in this case flipcharts that represent the story or the character. They can include pictures, drawings, graphs or text to bring the plot and its intentions closer to a prospective reader of the novel. The learners should create one electronic flipchart which is the basis of their presentation (see figure 17). The task suits various learner types due to the open and autonomous structure. It
gives the learners the opportunity to engage with the characters and associate freely with the occurring features, thus enhancing interpretative skills. They are asked to transfer those features from written text to visual output, which can then be presented on the IWB. The board itself functions as a display panel for the students who can independently move the pictures they inserted in accordance to their oral presentation, thus highlighting the corresponding image.

Teaching Vocabulary with an IWB

Building up a valuable vocabulary is central to foreign language learning, but it is difficult to achieve. To recognize words we need to associate meaning, sound and spelling and use new words correctly. The best way to learn new words is to learn them in context and use the items frequently in a variety of ways, including oral and written production and perception which should occur receptively and productively. Especially for young learners it is helpful to group words, e.g., zoo animals, location expressions (in the house, at the table, on the floor), likes/dislikes. By vocabulary we mean nouns, verbs, adjective and adverbs (i.e., content words) and not ‘function words’ which are treated in the grammar section. As a teacher one has to find a mix of explicit vocabulary teaching activities and those activities in which incidental learning can take place. Schmitt (2000: 146) mentions that “most computers include multimedia capability (they have sound as well as pictures), they are ideal for language practice that requires a variety of written and spoken contexts.” Computers in connection with an IWB ease the integration of multimodal sources to support the learning process of new words and store the material for uncomplicated repetition and reuse.

Learning the meaning of new words

Vocabulary input has to be well organized and adapted to the age and developmental point of the learners. The meaning of new words can be explained through verbal expressions or by demonstration or pictures in a visual approach. The IWB is especially helpful with supporting meaning through visual input.

Associating words with images

Using visual techniques for teaching vocabulary is a traditional approach used in the presentation of new vocabulary items. Visuals include flashcards, photographs, drawings and real objects. Those visuals are widely used for conveying meaning and are particularly valuable for teaching concrete items of vocabulary such as body parts or furniture.

The drag and drop tool allows the teacher or the learners to move objects or textboxes on the IWB screen. You click on an object or textbox to drag it to the matching partner where you can drop it by removing the pen or finger from the board.
Semantic mapping

“Semantic mapping is an activity that helps bring into consciousness relationships among words in a text and helps deepen understanding by creating associative networks for words.” (Celce-Murcia 2001: 288)

For semantic mapping activities words have to be matched in pairs that have a clear associative link. Closely related synonyms or antonyms should be avoided with beginners.

Presenting word families

Word families can either be introduced as such by giving the definition of the words or the focus of the word family construction can be on rhyming. The IWB can then help to highlight the rimes (all letters from the first vowel to the end of the syllable) in different colours with the help of the pen/highlighter tool.
Word-formation

Teaching languages with an IWB offers a great opportunity to pay more attention to language learning skills. The following example demonstrates the training of heuristics involved in guessing unfamiliar words and the related use of knowledge about word-formation. Derivation as the process of forming a new word on the basis of an existing word uses affixes in order to change the existing form of the word. In the activity, the students are asked to drag and drop possible prefixes or suffixes to the stem in order to create new words. The affixes can also be cloned or duplicated with the software.

Organizing Vocabulary

McCarthy (1990) suggests organizing vocabulary by topic, meaning, form or in contextual relations like registers or discourse. Gairns and Redman (1986) list several approaches and techniques used in the presentation of new vocabulary. All these presentation techniques can be easily implemented in the IWB classroom.

Scales

Once students have learned contrasting or related gradable items, scales can be used to repeat and add new items. For example, the contrasts of never and always can be added with hardly ever, occasionally, sometimes, and often. These words can be randomly arranged on the IWB screen to be then put into the right order while building sentences, e.g. “I hardly ever go swimming.”

Organizing in semantic fields

Vocabulary can also be organized through contrast or similarity or sense relations like hyponymy, which means that the meaning of one word is included in that of another, e.g. bananas, apples, cherries etc. are kinds of fruit.

After the presentation of the words they have to be repeated with a motivating approach for the learner. The organization of words through hyponymy can be done with the help of mind maps or graphs, which can also include pictures.

The drag and drop function of the IWB software is especially helpful for these kind of activities.
The Shape tool can be used to create two different shape objects to split the page in half. The fill tool is then used to fill the two rectangles with different colours. The rectangles should be on the back layer and the words on the top layer. The words are placed in the middle of the flipchart in the beginning and can then be dragged and dropped to either side of the flipchart.

The subsequent sections provide some examples of activities and materials that illustrate how the IWB can support teachers to achieve the aims discussed above:

**Introducing grammar - creating a life-like environment for the presentation and practice of grammatical structures**

Let's take the example of a lesson whose main aim is the 'practice of the will future'. The main task the students had to fulfil for this lesson was ‘drawing and describing their house of the future’. In order to set the context and introduce the topic of the lesson, the teacher presented an Internet video, which showed a family living in a ‘house of the future’ equipped with state-of-the-art technology. The use of the video allowed the teacher to create a more life-like and authentic environment. In connection to that topic, other Internet materials the teacher could have used (with higher levels) are a) websites whereby other children draw and describe their houses of the future, b) interviews with experts on what they think the house of the future will look like.

Another possible way to introduce and stimulate interest in a new topic with interactive whiteboard technology is via the use of student-generated data as a starting point for discussion. In this regard, the teacher could use a voting questionnaire, in which the students would have to choose which feature would be essential in their ‘house of the future’. The templates used in this example can be easily created with the help of most of the software that accompanies the IWB. The templates can be found in the resource galleries.

Communicative and task-based language learning approaches do not recommend teaching grammar for its own sake as a practice of specific grammatical structures, but those structures should be embedded into a real life context. The teacher should create an appropriate context for increasing learners’ exposure to the target grammar, design pedagogical tasks that will provide opportunities for learners to use the target grammar for real purposes and plan awareness raising activities that will support learners in noticing and consolidating their grammatical knowledge. Within this approach, learners need to become ‘active explorers of language’. Grammar should not be a) the organising principle of a course, where all topics focus on grammar and not on the topic itself, and b) not the single objective of a class. Instead, the classes and courses should be designed around topics, e.g. holidays, planning a trip, asking for necessary directions etc. The necessary grammar is then tackled within this framework.
Awareness raising activities - using the drag and drop tool to demonstrate specific grammatical features

The ability to move text around on the IWB in full view of the whole class is one of the IWB features that can be exploited for teaching grammar. For instance, for ordering words in a sentence or demonstrating specific features of word-order in the target language. Watching elements of language move on screen helps learners to concentrate and makes them question what they are seeing in a way that does not appear to happen with static, printed text.

Various examples:

a. Students were presented with the step-by-step rules in English for forming the imperfect tense in French, but the steps were not in the right sequence. Two students came up to the IWB to drag the steps into the correct sequence.

b. The teacher created time-lines on the IWB in order to demonstrate the different uses of the imperfect and perfect tenses in French. Students were then presented with a selection of events to drag onto the right-hand side area of the timeline.

c. The teacher used a 'Fridge Magnet' activity to raise learners’ awareness of features of word order. (Figure 27)

The teacher used the drag and drop tool to support learners’ understanding of the correct use of weil (because) in German. She shows an example of how two sentences can be put together to make a longer sentence with a subordinate clause starting with weil. The words can be moved around to show very visually how weil sends the verb to the end of the sentence. Students can also practise this, and the kinaesthetic element helps to reinforce this grammatical point.

Introducing grammar - using the IWB to teach grammar inductively

The IWB tools can support teachers in teaching grammar inductively. An inductive approach is when the rule is inferred through some form of guided discovery. This inductive approach actively involves students in their grammar learning process, because they have to formulate grammatical rules by themselves and to check, test and revise these rules, rather than to receive them passively from their teachers without understanding the reasons behind them.

This lesson was designed for the topic “simple past”. The teacher wants to draw the students’ attention to the difference pronunciation of the –ed past tense ending. She then created a ‘magic box’ exercise, in which only the verbs with the /t/ ending would be accepted into the box. After doing the exercise and listening to the differences in pronunciation of the –ed past tense endings, the students had to figure out what the rule was. How does it work? Essentially there are objects on the screen which have three different layers. They have been ordered so that the ‘magic box’ is in the middle layer, with the -ed words beneath that box layer, and the -t words in the layer above.

Figure 26 - Magic box.
Awareness raising activities - whole class collaborative analysis of a piece of writing

The TBLT approach emphasises the communicative use of language and focus on meaning. However, the teacher also has to help learners become aware of structural problems since a mere focus on meaning does not necessarily support language development. The IWB can thus be used to draw students’ attention to form, in ways that are exciting and interesting.

Teachers can use the IWB to support the whole class collaborative analysis of texts produced by the students. For instance, students can bring their electronic texts (dialogues, descriptions, etc) on their USB memory sticks or send them to the teacher via email. The teacher can then display some of the students’ texts on the IWB for collaborative analysis. The students can then be encouraged to evaluate the appropriateness, coherence and linguistic quality of the texts. After being revised, the texts can be saved and returned to the authors.

Using visual prompts for controlled language practice

Another example for controlled language practice is the use of visual prompts and the infinitive on the IWB as a guide to form the simple past. In the activity the learners are introduced to the character Jack. The students are supposed to retell Jack’s day with the use of the simple past. They can move the figure of the boy to the pictures they are referring to. This way, several students can come to the board and build one or two sentences in the simple past. The teacher can then provide immediate feedback to the students regarding the use of that specific grammatical structure.

Figure 29 - Teacher scanned students’ drawings and they could present and describe them to the whole class. The snapshot on the right shows the use of the screen shade to hide and reveal.

For the students, one advantage of using IWB technology for their presentations is the possibility to draw upon a variety of tools, such as the highlighter or the reveal tool (see figure 29 – right side) in order to engage the other students and bring more excitement to the activity. These tools can also help them for the further development of questioning skills.

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Figure 30 - Controlled language practice of the simple past.

Practicing grammar (Controlled Language Practice) - supporting the practice of specific target grammatical structures

Sharing student generated content

To practice grammar, the teacher should create tasks that make the use of a specific grammatical point mandatory to fulfil the task goal and thus make learners focus on that aspect of accuracy. For instance, the IWB can be used as a platform for the presentation of student-generated work. In this ‘house of the future’ lesson the teacher collected students’ drawing and scanned them. The students then used the grammatical structure of the ‘will-future’ to describe their houses of the future, which were shown on the IWB.

Figure 28 – Collaborative analysis of a piece of writing.

Figure 29 - Teacher scanned students’ drawings and they could present and describe them to the whole class. The snapshot on the right shows the use of the screen shade to hide and reveal.

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Figure 30 - Controlled language practice of the simple past.
Further Information
The iTILT project, interactive Technologies In Language Teaching, helps teacher integrate the interactive whiteboard (IWB) into communicative teaching approaches. In the framework of this two-year European Lifelong Learning project (2011-13) project researchers in 7 countries (Belgium, France, Germany, Netherlands, Spain, Turkey & the UK) followed 44 teachers of 6 languages (English, Dutch, French, Spanish, Turkish & Welsh) across 4 levels of education (primary, secondary, higher and vocational) and varying levels of language proficiency (CEFR level A1 through C2). The resulting 81 class films formed the basis for selecting over 250 short video clips of classroom practice which are presented on the project website alongside teacher and learner commentary, and associated teaching materials, including IWB files. Also available on the project website are the iTILT training handbook and iTILT teaching materials for different language areas.

www.itilt.eu/partners
www.itilt.eu/resources
www.itilt.eu/itilt-training-handbook
www.itilt.eu/teaching-materials

www.itilt.eu/library - more information on IWB, material collections, recent publications, copyright
www.prometheanplanet.com - Interactive Whiteboard community for training support and to share resources from Promethean
www.exchange.smarttech.com - Interactive Whiteboard community for training support and to share resources from SMART Technologies
www.mimioconnect.com - IWB community for Mimio users
www.teachersfirst.com/whiteboard.cfm - collection of resources and websites
www.echalk.co.uk - teaching resources
www.iwb.org.uk - copyright free resources and materials
www.interactivewhiteboard.net.au - lessons and resources
www.think-bank.com/iwb - flipcharts and flash resources


**Literature sources**


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**Other Sources**

capitolchoices.communitypoint.org/images/resources/Book/life_is_funny_lg.jpg

www.flickr.com - Roger H. Goun (two men)


www.pics4learning.com

www.processresearchmethods.org


www.unterrichtsmaterial-schule.de
Glossary - IWB software main tools

**Action browser** – used to drag program options as shortcuts on flip-charts. Also used to assign actions to objects, e.g. by clicking the object you are redirected to another page.

**Bin tool** – (ActivInspire, Starboard) used to delete objects and annotations by dragging and dropping them in the bin.

**Camera tool** – used to capture an image of the user's desktop, flipchart and paused video frames or animations. The user can take a photograph of the complete display screen or define a specific area on the screen to capture only part of it.

**Clear tool** – used to remove annotations, objects, grids and backgrounds from the flipchart page.

**Clock tool** – displays a clock or a counter on the screen. It can be analogue, digital (or both) and count down or count up digital counter.

**Creative pens** – (SMART) allows the user to draw in various patterns, shapes and coloured banners.

**Eraser tool** – allows the user to remove any mistakes that they may have made when annotating with the Pen or Highlighter tools. It can be used to erase the whole or part of an annotation object.

**Fill in tool** – used to change the colour of anything on screen.

**Flipchart or Page Recorder** – allows the user to record annotation actions performed on a flipchart page, and then play them back as an animation.

**Floating calculator** – Opens a calculator in a floating window, which allows the user to perform mathematical calculations.

**Floating or on screen keyboard** – displays a keyboard in a floating window on screen. It works just like a physical computer keyboard, except that the ACTIVpen (Promethean) or finger is used to enter characters and text.

**Highlighter tool** – allows the user to draw over annotations, text, images and other objects with a translucent pen.

**Insert table** – allows the user to easily insert tables into the flipchart.

**Insert media from file** – allows the user to directly insert a media file from the computer into the flipchart, e.g. pictures, audio files, flash files and so forth.

**Lock** – used to lock objects in place so they cannot be dragged and dropped to a different space.

**Magic ink tool** – (Promethean, ActivInspire) allows the user to “remove” the top layer of the flipchart gradually; annotation, pictures or objects.

**Magic pen** – (SMART) allows the user to draw a circle on the flipchart to create a spotlight or a rectangle to create a magnifying effect.

**Marquee select or “drag and drop” tool** – allows the user to select objects on the page, and manipulate them by moving, sizing and rotating them.

**Page Backward / Page Forward** – used to navigate through flipchart pages.

**Page Browser** – used to arrange flipchart pages.
<table>
<thead>
<tr>
<th>Tool</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Page Reset</strong></td>
<td>used to revert the current page back to the last saved version.</td>
</tr>
<tr>
<td><strong>Page Selector or side browser</strong></td>
<td>used to view thumbnails of flipchart pages and select a page to work on.</td>
</tr>
<tr>
<td><strong>Page Zoom tool</strong></td>
<td>allows the user to dynamically magnify or reduce the current page that is being viewed.</td>
</tr>
<tr>
<td><strong>Pen tool</strong></td>
<td>used to annotate, write and draw. It can be used in numerous colours and the user can alter the colour or pen width at any time.</td>
</tr>
<tr>
<td><strong>Power tools toolbox</strong></td>
<td>contains a set of useful but not so frequently used tools to use whilst designing or delivering a presentation, such as: calculator, dice, ruler, notes and pointers, among others</td>
</tr>
<tr>
<td><strong>Properties or pen options</strong></td>
<td>allows the user to change pen colour, width and line style as well as the fill effects.</td>
</tr>
<tr>
<td><strong>Recognition tool shapes</strong></td>
<td>allows the user to convert freehand shapes into smooth geometric shapes.</td>
</tr>
<tr>
<td><strong>Recognition tool handwriting</strong></td>
<td>allows the user to convert freehand writing into editable text objects.</td>
</tr>
<tr>
<td><strong>Redo tool</strong></td>
<td>reappplies an action that has been reversed by the Undo Tool.</td>
</tr>
<tr>
<td><strong>Resource Library</strong></td>
<td>used to access a wide range of resources, such as stock annotations, saved flipchart pages, images, sound files, web links, background tiles or templates and so on, which can be clicked and then dragged onto the page in one movement</td>
</tr>
<tr>
<td><strong>Reveal tool or screen shade</strong></td>
<td>designed to work in a similar way to the traditional method of using a piece of paper to mask parts of an overhead projector presentation. It can be used slowly expose the screen in one of four directions (down, up, left and right).</td>
</tr>
</tbody>
</table>

**Shape tool** — allows the user to create various shapes, e.g. circles, squares, rectangles, stars, arrows, ellipses and so forth.

**Spotlight tool** — allows the user to highlight areas of their desktop or flipchart in order to focus attention onto a specific area. The user can choose between a circular spotlight and a square spotlight.

**Text tool** — allows the user to add text to flipcharts and pages, which can then be formatted using the Text Edit Toolbox.

**Undo tool** — reverses the last edit or command action performed on a flipchart, even across page turns.

**Web browser** — directs you to your internet browser for faster access.