

Business field-specific qualification
for the second hand sector
"Specialist for used electrical appliance"



Guidelines for the implementation of webinars
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1. Introduction

Alongside conventional learning and teaching methods such as traditional classroom teaching or project work, self-directed, discovering or cooperative learning methods are gaining ever more importance in teaching and learning by means of the latest computing technology – e-learning. An alternative to the familiar e-learning methods such as computer based training (CBT) or web based training (WBT) in which electronic or digital media are used to communicate the course content and mostly demand a high degree of independence and personal initiative from the learners, webinars offer a useful and complementary alternative among the new learning and teaching methods as well as the conventional learning and teaching methods. At this point, it should be mentioned that the term "webinar" is often replaced by other terms such as virtual classroom session, web conference or live web training, for example.

In general, the organisation and the execution of webinars is comparatively uncomplicated, provided that the technical environment is available and how to deal with webinars has been explained to the participants involved in a webinar. However, there are some significant aspects to be taken into account with regard to the necessary technical environment, the requirements for a webinar and its structural and content-related design in order for a webinar to be successfully implemented.

The following guidelines for the implementation of webinars should provide more detailed information about the tool as such and, on the other hand, about the required environment for the implementation, execution and organisation of webinars. The beneficiaries (e.g. qualifiers, trainers) should be put in a position to be able to organise webinars and successfully implement them.

2. Description of the webinar learning tool

In contrast to conventional teaching, seminars and training courses for which the time and place are set and at which the learners must be present in person in the place of learning, webinars are a digital learning tool which permits distance learning for the learners. While conventional teaching deals with the conveyance of specific skills and content which are conveyed live by a teacher/trainer by means of a variety of media (such as Metaplan boards, blackboards or PowerPoint, for example) and methods (such as discussions, lectures or group work, for example), in webinars, live learning occurs over the internet. The tool as well as its benefits and areas of application are described in more detail below.

2.1 What exactly is a webinar?

The term "webinar" in itself expresses what it is. It combines "web" and "seminar", meaning that it is a seminar carried out via the world wide web (internet). Since the number of participants can be much higher than for conventional seminars, which up to approx. 20 participants are involved in (or sometimes more), we talk about webinars for participant numbers of up to 100 and more. Once the number of participants moves beyond 100 participants, we also talk about online conferences.

In contrast to "webcasts", in which information is simply made available for retrieval for a limited period of time on the internet via a specific platform, a webinar is designed to be interactive and allows for communication between the speaker (=teacher/trainer) and the learners. Webinars therefore generally take place live and have a start and end time which are specified in advance, between which the course content is conveyed via the internet. The speakers explain the course content verbally via Voice over Internet Protocol (VoIP) and by means of correspondingly prepared presentations in a virtual seminar room. During the execution of the webinars, the participants have the opportunity to communicate with the speakers in two ways: firstly, through written interactions such as chat, downloading of files or answering of questions, and/or verbally via an appropriate communication device on the

PC after allocation of speaking rights by the speakers or phone conferences connected in parallel. It is therefore possible not only for one participant to currently be active, but also for multiple people to be able to speak to one another at the same time. All of the content conveyed in face-to-face seminars can also be conveyed using webinars. Numerous interaction tools support the knowledge transfer. More details regarding the technical requirements and possibilities for the use of webinars will be provided in Section 3 below.

2.2 Areas of application for webinars

The possibilities of an unlimited number of participants as well as location-independent learning are characteristic of webinars. For this reason, the use of webinars as a teaching tool is suitable, among other things, for

- A wide variety of e-learning offerings, in other words for the imparting of specialist expertise
- Online analysis meetings with facts taken as a basis
- Online meetings (e.g. team meetings, management meetings and project meetings)
- Supplementing face-to-face seminars (preparation and/or follow-up)
- A tool as part of blended learning concepts
- Taster courses for fee-based seminars
- Product introduction
- Product explanation and training
- Press conferences
- Company training and vocational education
- Etc. (cf. Blatter, 2016)

Webinars are predominantly used to impart specific expertise which is aimed at specific delimited course content as well as to deepen and expand upon expertise gained through conventional means and for introducing a variety of course content.

Webinars are used in the following manner. Via virtual seminar rooms on the one hand, or via platform solutions on the other, both of which are offered on the public marketplace online to some extent. Depending on the offering, these can be used free of charge or for a paid-up license by potential participants and those who are interested in specific course content and can be hired by potential seminar providers in order to offer and communicate teaching offers online. However, in comparison with platform solutions, individual virtual seminar rooms offer only limited possibilities for the arrangement and implementation of a webinar. Platform solutions thus cover more functions and can be arranged in your own corporate design. This predominantly presents opportunities for bigger companies which are increasingly using webinars to communicate expertise and increase their recognition value.

2.3 The uses of webinars – Advantages and disadvantages

The use and application of webinars contains a multitude of **benefits** in comparison with **conventional teaching methods** owing to the multitude of areas of application and forms of implementation. These include

- **Location-independent learning:** a webinar can take place anywhere. Not just in special seminar rooms or further educational institutions, but in any location where internet access can be provided (e.g. even in the workplace or at home).
- **Learning in the workplace:** the course content can be conveyed exactly where the lessons learned will be used (e.g. in the workplace).
- **Device-independent:** participation in a webinar can occur through any PC. you simply need internet access.
- **Any time learning:** there are only limited time limitations on the execution of a webinar, insofar as the time of execution must be specified. However, the execution

can occur independently from business hours, e.g. even in the evening hours, in break times or at weekends.

- **Large numbers of participants:** the number of participants is practically unlimited.
- **Time-saving:** a seminar can be divided into multiple shorter webinars. The practical transfer is thus facilitated and does not take entire working days.
- **Transparent and transferable:** webinars can easily be recorded and the recordings can be made publicly available.
- **Controlled learning:** webinars allow for a greater degree of concentration since, for example, the course content is conveyed not rigidly and too broadly, but in smaller learning units.
- **Active tool:** opportunities for interaction during a webinar increase attentiveness.
- **Cost-saving:** webinars are more cost-effective for the participants (e.g. no travel costs, meal costs and accommodation costs)

Alongside the advantages of webinars, however, they also have **disadvantages** when compared to **conventional teaching methods**, such as

- The possible interactions between speakers and participants are limited by technical tools.
- Personal contact and exchange between the webinar participants is lost.
- Course content must be prepared and presented in a particular form.
- Teaching activities which use a lot of exercises such as group work, project work or role-playing are not possible with all webinar software.
- Primarily cognitive knowledge can be conveyed.
- Possible technical faults during execution can lead to webinar drop-outs and barriers.

3. Technical environment for webinars

The execution of webinars requires a specific technical framework. In order to be able to execute a webinar successfully and with no problems, the technical prerequisites need to be available and the technical requirements need to be fulfilled by all of the participants involved.

3.1 Technical requirements for the webinar leader and participants

In general, the participants involved in a webinar need

- A functional PC, Mac (as a notebook, among other things) or iPad with the appropriate operating system (depending on the provider of the virtual webinar rooms) and ideally equipped with a webcam and microphone
- A functional and stable internet connection via DSL or cable (the quicker the better)
→ **Note:** UMTS connections are less suitable
- Speakers or a headset or mobile device
- A phone where necessary, if the verbal exchange occurs by means of a parallel conference call
- A valid email address (advisable in order to send access data)

Note: the system requirements differ from provider to provider. Generally, however, an up-to-date browser (e.g. latest version of Internet Explorer, Mozilla Firefox, Apple Safari, etc.) is required. In addition, it should be noted that tablets are not suitable for the execution of webinars owing to missing background programs.

3.2 Who provides virtual seminar rooms?

There are a certain number of providers which offer a multitude of different services and solutions for using the "webinar" learning tool. The respective prices depend in each case on

the technical facilities as well as the scope of services, which can stretch from small groups of participants (with up to 100 people) through to large groups of participants (with up to 1000 participants). Frequently, individual solutions which are tailored to the requirements of the webinar organiser are offered. The solutions on offer stretch from simple solutions for online meetings (up to 100 participants) which, for example

- guarantee immediate access from any internet-enabled end device,
- allow for the quick and easy creation of online seminar rooms,
- allow for the saving of files, documents and notes,
- allow for recording and editing of the content,
- ensure the anonymity of the participants and data protection, and
- include standards for barrier-free access to all content,

through to complex solutions (up to 1000 participants) which, in addition to the possibilities listed above for the simple solutions, also, for example

- cover dynamic multimedia and video conferences,
- include a variety of tools for interactions,
- ensure a simple login procedure which allows templates and content to be reused, registration forms to be managed and reminder/confirmation emails and ad hoc messages to be sent,
- offer flexible customisation options such as individual design of firm live environments, URLs for accounts and allocating accounts and webinar rooms, and permitting the creation of landing pages and emails,
- include simple analysis tools, and
- visualise the data clearly.

In addition, some providers offer solutions which are specially designed for "learning" in virtual classrooms. These solutions generally cover larger numbers of participants (up to 250 participants) and include advanced functions such as

- direct learning via mobile devices,
- interactive sessions from a wide variety of workplaces,
- moderation, data sharing, use of whiteboards and emoticons on mobile devices,
- direct data exchange such as measurement of participant numbers, real-time sessions or interactions between everyone involved, for example
- easy course administration (e.g. creation of course plans),
- publishing of content (including across multiple devices),
- quick creation of PowerPoint presentation (cf. Adobe Connect, 2016)

A selection of the relevant technology for some webinar providers¹ is set out below, such as

- Adobe Systems Software Ireland Ltd. (Adobe Connect Webinars, Adobe Connect Meetings, Adobe ConnectLearning)
- Cisco (WebEx)
- CitreX (GoToWebinar, GoToMeeting, GoToTraining)
- Vitero GmbH (vitero Webinar)
- edudip GmbH

¹ Note: there are other internationally and nationally active providers along with the named providers, the identification of which in detail is not included in these guidelines. Only a selection of well-known providers can be named in order to give the user of the guidelines a selection. The companies in question had no influence on their listing for the purposes of self-promotion, but were rather identified based on experience and an internet search.

3.3 Need for technical assistance

In general, a webinar can be created independently and filled with content. Execution is also possible independently. However, it is recommended that you seek technical assistance from appropriate experts specialising in the organisation and implementation of webinars in order to ultimately ensure technically smooth running of a webinar.

Alongside moderation tasks, the tasks of a technical assistant include, among others,

- Advising the speakers in the creation of the webinar
- Incorporation of the webinar content (potentially adding more materials during the course of the webinar)
- Setting up meetings and setting up the login procedure
- Upgrading moderators (usually speakers = teachers/trainers) and participants
- Distributing approvals for the use of the various functions
- Recording of content
- Stepping in if there are any technical problems (e.g. if individual tools don't work)
- Ensuring smooth communication between the webinar participants

Technical assistance runs in the background for the execution of the webinar and is generally performed on a site-specific basis. Experts support the webinar as silent participants and only step in if an unforeseen technical problem or communication error occurs.

3.4 Notes on technical structure

Since webinars are held online via the world wide web, they can also, accordingly, be carried out worldwide (i.e. the webinar leader and the individual participants can be in completely different locations a long way away from each other, in different countries for example). The seminar leader and the participants login to the webinar via a fixed URL address and can then communicate with one another and take actions in the appropriate webinar room. This can occur through Voice over IP or using a conference call system as set out above.

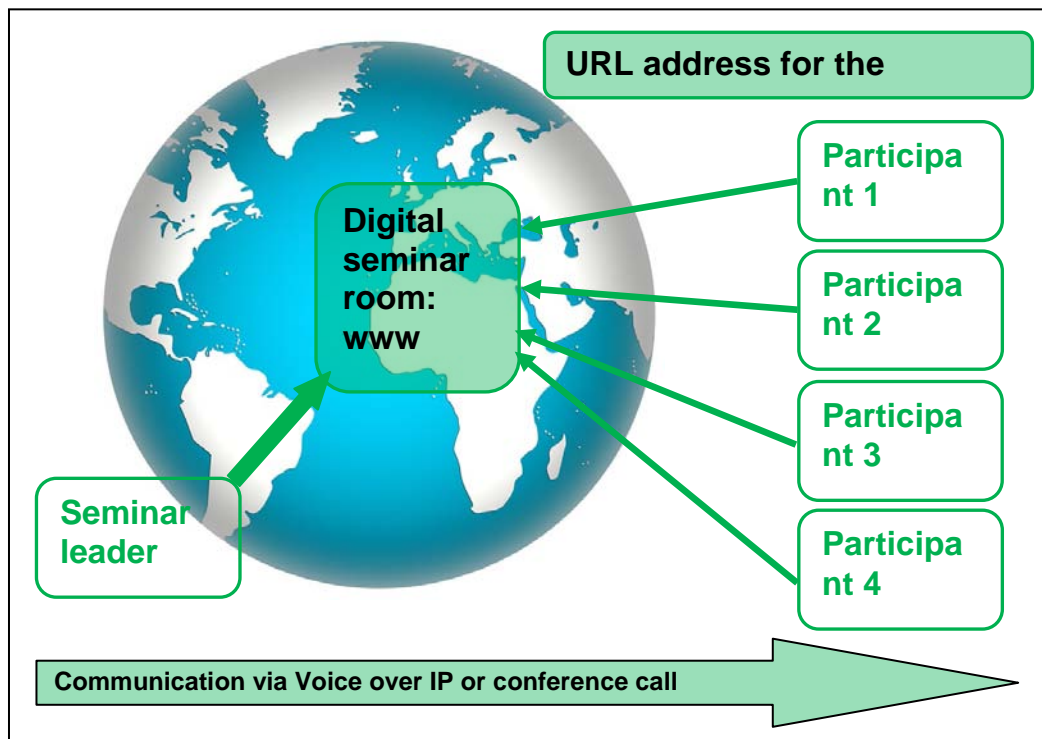
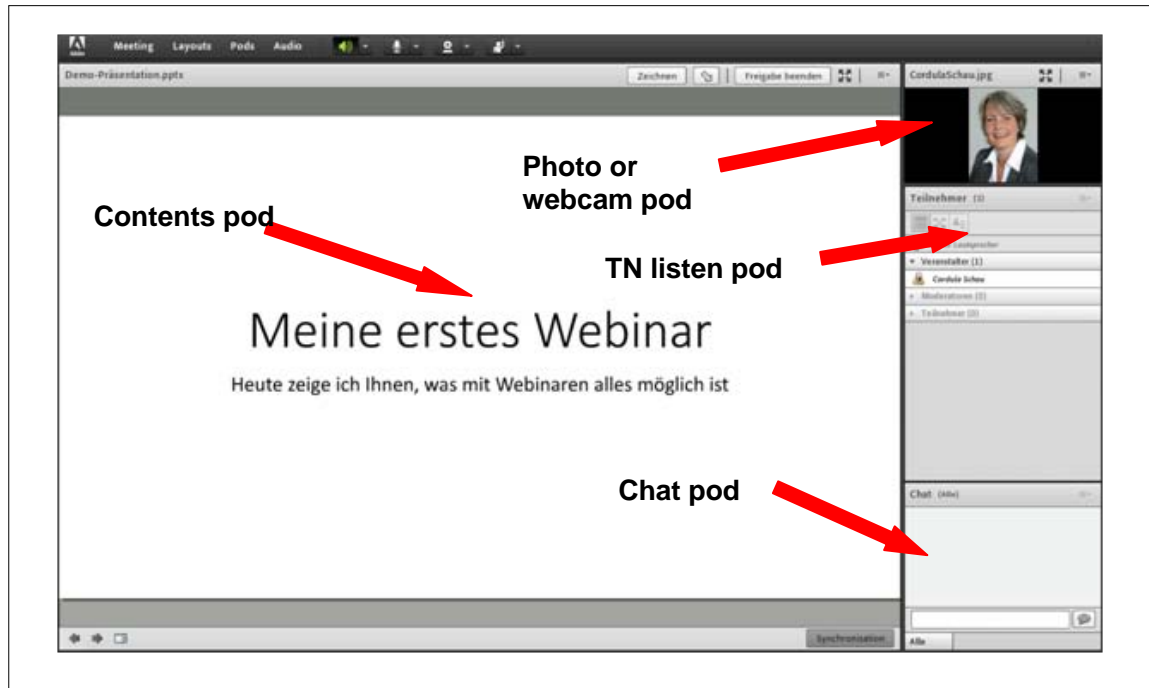


Fig.: The webinar principle

Technical structure

The webinar room as such has a variety of areas (pods) which have different functions and cover different content, as shown in the diagram below and the subsequent explanations.



Contents pod: The teaching/learning content is shown here. This can occur in the form of a PowerPoint presentation or a PDF file which can be leafed through during the webinar. As an alternative to this, so-called desktop sharing in the contents pod can be used to present any applications such as Excel, Internet, Word, etc. on the leader's own computer.

Photo or webcam pod: Here, an image of the organiser or moderator (= speakers), among other things, can be generated so that each of the actors involved can develop an idea of their opposite party (this creates greater proximity).

TN listen pod: Here, the participants in the webinar are listed with their usernames so that the actors have an overview of the people participating. The actors can be assigned various roles such as organiser, moderator or participant. Roles are assigned by the organiser.

Chat pod: Here, each of the actors involved in the webinar can pose written questions and make comments which can be visibly answered by the organiser and/or the moderator (= speaker) for all participants. Some webinar room providers offer the "private chat" function, i.e. the participants can select individual people participating from the participant list and communicate with them in a separate tab without other participants being able to see this.

Additional survey pod: If the provider offers this function, polls can be created and performed quickly and easily during the course of the webinar (e.g. for evaluating the webinar as shown in the illustration below). The creation of an appropriate survey should occur before the webinar is executed. The survey can then be called up as required during the webinar, which the necessary questions can be shown at any time.

Wie gefällt Ihnen dieses Webinar?
☰

Bearbeiten
Umfrage beenden

Wie gefällt Ihnen dieses Webinar?

<input checked="" type="radio"/> Super	<div style="width: 100%; height: 10px; background-color: blue;"></div>	100%	(1)
<input type="radio"/> Gut	<div style="width: 0%; height: 10px; background-color: gray;"></div>	0%	(0)
<input type="radio"/> Geht so	<div style="width: 0%; height: 10px; background-color: gray;"></div>	0%	(0)
<input type="radio"/> Gar nicht	<div style="width: 0%; height: 10px; background-color: gray;"></div>	0%	(0)
<input type="radio"/> Keine Stimmabgabe			

Ergebnisse veröffentlichen

The various pods are supplemented by a menu bar which contains a variety of functions such as audio settings and microphone settings, for example. These settings can be adjusted by each participant individually and according to their requirements. In addition, the menu bar usually includes a button which makes it possible for the participants to quickly make short comments without writing a long text in the chat, such as pipe up, agree, disagree, absent, speak louder, speak more quietly, quicker or slower, smileys and other obvious emojis, among other things.

4. Interactions in webinars

The interaction between the people involved in a webinar is a significant component of the "webinar" learning tool. It allows them an immediate exchange by means of a variety of tools. The various interaction options vary according to the provider of the webinar rooms. However, a few of the essential one should be listed in order to clarify the interactive possibilities of a webinar, such as

1. Chat
2. Speaker function via mic
3. Whiteboard
4. Use of signs and symbols (e.g. thumbs up/down, smileys)
5. Writing and label opportunities via whiteboard
6. Filling our surveys/questionnaires

4.1 Interaction options for webinar participants in the webinar

Through the option of interaction in webinars, the participants can actively take part in the webinar. They receive more than just knowledge through information in the form of an keynote speech which is maximally explained by a speaker. The option of interaction with the speaker as well as between one another, among other things, for the participants promotes

learning enjoyment and achieves improved attentiveness. By means of the various interaction tools (see Section 4), the participants can

- Ask for clarification from the webinar leader if they are unsure on the knowledge being imparted
- Discuss
- Chat
- Solve exercises set on their own or together
- Check their knowledge
- Make comments
- Generate sketches (e.g. drawing, painting, calculating)
- Participate in surveys
- Submit their own files

In addition, the participants also have the opportunity to decide for themselves

- when they want to switch to full screen
- whether to switch the speakers on or off
- to let the speaker know if they cannot be heard well

4.2 The role of speaker = teacher/trainer

The role of speaker is generally assumed by the teacher/trainer who functions as the moderator in the webinar. They have the following tasks:

- preparing the course content to be conveyed appropriately for a webinar,
- ensuring that the course content is on file/has been uploaded in the webinar room at the time of the webinar,
- ensuring that the uploaded documents are started and live video or audio documents are transferred,
- ensuring that the course content is accessible to all participants during the seminar,
- executing and moderating the webinar,
- keeping the participants' attention.

4.3 The speaker's interaction possibilities

Through the option of interaction in webinars, the speaker can actively exchange with the participants. They have the option of responding to the individual participants' reactions in a targeted manner and thus get more attention and achieve the desired learning goals for the participants. By means of the various interaction tools (see Section 4), the speaker can

- Set questions to be worked on (e.g. surveys) and track the answers in real time
- Answer questions immediately
- Carry out learning reviews
- Set problems, have them solved immediately and correct them
- Lead discussions
- Get participants to work through aspects together
- Get participants to do written/drawing work
- Demonstrate software applications live (e.g. Internet, Excel, Word) using desktop sharing
- Demonstrate activities live via video transmission (e.g. holding video conferences)

5. The progression of webinars and preparation of webinar presentation

5.1 Scope in terms of time and content, preparation and progression

Scope in terms of time:

In general, webinars should cover a time slot of from 60 to max. 120 minutes. Webinars lasting longer than 120 minutes are not recommended because both the speaker and the participants can become overtaxed. It is then to be expected that information is not or is only partially taken in owing to the decreased concentration.

Number of slides:

The number of slides used should be adjusted according to the length of the webinar and the course content to be conveyed. In general, no standard value can be given for the number of slides in relation to the length of a webinar. This is bound up in the fact that the course content to be presented is explained by the actual speaker and this criterion is individual. When preparing the content, therefore, the amount of time allowed for explanations in relation to the overall time available should be strongly taken into account, along with time for questions.

Preparation of the webinar:

Various aspects need to be clarified and ensured in the run-up to a webinar in order to guarantee smooth progress and keep the participants' interest. The speaker who will be leading the webinar should take the following aspects into account in advance:

- **Topic/title:** the title should be chosen so as to directly strike the participants and awaken their curiosity, for example *Acquisition of goods in the second hand market – do you wait for offers or acquire them yourself? – How to acquire goods professionally*
- **Learning objective:** the planned learning objective should be clearly defined in advance of a webinar in order to be able to decide on the content with the objective and results in mind and prepare it appropriately. In order to precisely define the learning objective, the participants' needs should be clarified in advance of the webinar, along with what cognitive, psychomotor and affective needs the participants will bring.
- **Content:** the course content should not be limited to the simple communication of information, but should include additional expert knowledge and practical knowledge in order to promote exchange with the participants.
- **Technology:** in order to ensure a successful start to a webinar and smooth running of the webinar, the following technical requirements should be checked in advance:
 - Whether the PC and internet connection are working
 - Whether the headset or phone is working.
Note: if Voice over IP is being used, an audio check should be carried out and the speakers and microphone should be tested before the webinar. If a phone is being used with an additional circuit for a conference call, the dial-in should always be ready.
 - Whether the webcam is working (where this is required).
Note: care should be taken to ensure that the light does not fall from the side or from behind (darkening if so) and the background is not too unsettled so that no abrupt movements occur in front of the webcam
 - Whether support is ensured
 - Whether all invitations have been sent to the participants and they have received their access data for the webinar

Note: with the exception of support, the technology should also be checked on the participants' side

- **Schedule:** concrete consideration should be given to the schedule in relation to the time available in advance (how much time (minutes) individually planned actions will take), such as
 - The greeting
 - The introduction to the topic
 - Communication of the content
 - Possible interactions
 - The recap
 - Possible feedback, surveys, tests.

5.2 Communication

As already explained multiple times, webinars allow for a variety of possibilities for communication between the actors. Thus, anyone who is acting as an organiser and has the license for the webinar rooms (they can potentially also be the moderator = speaker at the same time) has the option of giving the participants various participant permissions, such as for use of the whiteboard, for example. This can be used for feedback, brainstorming, interactions and group work. In addition, the individual participants can accept or reject the word and activate the chat. The participants can be involved in the learning unit via the whiteboard in that they use it in order to edit or work through content, for example. In addition, they can communicate directly via the text chat (for better clarity and overview, the participants can each choose different chat colours). The use of chat enlivens the webinar and gives the participants the feeling of direct participation. The use of the poll tools is another communication option by means of which knowledge-based questions and general questions can be posed and suggestions for discussion can be given. They offer the option of the visualisation of questions and answers.

5.3 Tips for the moderator = speaker

- The first interaction should occur at the beginning of a webinar since the participants have a positive expectation from experience at the beginning of the webinar and at the same time are engaged for when you impart the knowledge purely as information (passively without participation) in the form of a keynote speech. An immediate interaction creates a positive surprise effect.
- Organise your speaking time well and take care to ensure that sufficient time is planned for the individual sections as well as for queries.
- Speak clearly and in a loud voice.
- Respond concretely to questions and deal with them one after another.
- If a webcam is switched on, use gestures and facial expressions in order to reinforce statements.
- Have the participant list in view in order to be able to react to requests to speak.
- Keep in mind that the information that you want to convey will be processed both visually through the perception of the eye (images on the PC) and auditorily through the perception of the ear (explanations using Voice over IP or parallel conference call).
- When preparing the webinar content, take into account the fact that the participants are only receptive to a limited extent → You should thus design the webinar to be interesting and incorporate suspense time and again in order to keep the participants' attention.

5.4 Problems which may occur and how to fix them

3 types of problems may occur during a webinar

1. Technical problems:

- You can't see anything
- You can't hear anything
- You can't write anything

2. Organisational problems:

- The login address or access to the conference call doesn't work
- The headset malfunctions
- The speaker's phone rings
- Background noise can be heard
- The collaboration between the moderator and a possible co-moderator doesn't really work
- The collaboration between technical support and the moderator doesn't really work

3. Human problems:

- Participants become constant questioners
- Participants become constant talkers
- Participants fill up the text chat
- Participants distract the other participants
- Participants don't ask any questions
- Participants don't write in the chat
- Participants insist on asking unpleasant questions
- Participants arrive late

A co-moderator can work against possible problems which may arise. The use of such a co-moderator lends itself predominantly to larger participant numbers because they then take the roll of preventing problems which the moderator conveys the content. The co-moderator can get involved in the event of the following problems as follows.

Constant questioners or constant talkers: moderator: "I'll answer your questions afterwards." Co-moderator: can also answer questions (chat)

No-one asking questions or using the chat: use prepared question. Co-moderator asks the questions (preparation!)

Technical problem: co-moderator can deal with the affected participants (e.g. chat)

Imparting knowledge: co-moderator can take over part of the session in the role of an expert.

5.5 Webinar structure

When structuring a webinar, a variety of different aspects must be taken into account such as the content, the methods/actions used, the usable tools and the time factor. The following table gives an overview of what should be taken into account.

Content	Method/action	Tools	Time
What guidance should you follow and what needs to be taken into account when structuring a webinar?			
What content needs to be conveyed?	What methods should be used?	What tools should be used?	How much time is available for what (content)?
Comments			
Divide the content into sections/sub-sections	Depends on the objecting and number of participants	Depends on the objecting and number of participants	Depends on the total time and the amount of content
What needs to be considered			
<p>After breaking the planned content down into sections and sub-sections, the following should be considered:</p> <ul style="list-style-type: none"> • Can all content be presented as originally intended • Is it necessary to outsource the content/information onto another medium? 	<p>What teaching methods are appropriate for conveying the content, e.g.</p> <ul style="list-style-type: none"> • Lecture → used to convey the content • Discussion → used to develop points of view and going into the content in greater depth • Exercises → used for consolidation of the content (the knowledge) • Brainstorming → used for generating ideas • Co-moderator → for the use of expert knowledge 	<p>How can the various methods which will be used in the webinar be supported through the use of the technologically available tools? Which tools are suitable for the implementation of which methods?</p>	<p>Since the individual content section in webinars are generally clocked very closely in terms of time in comparison with face-to-face seminars, a mix of methods should be introduced in order to hold the participants' attention more strongly.</p>
Comments			
	Pay attention to the mix of and variation in methods	Pay attention to the technical realities – what is feasible	Use a variety of methods + good division of time

The choice of methods and the use of certain tools in order to support the teaching methods chosen depends on the content to be conveyed on the one hand and on the number of participants and the time available on the other.

Small groups up to max. 10 participants:

For smaller groups, more and a greater variety of methods and tools suggest themselves for use since the involvement of the participants is very limited and, from experience, interactions take less time than in large groups. Alongside presentations which are verbally supported by explanations, discussions, feedback sessions and surveys suggest themselves for small groups since these do not require too much time when implemented in a small group. Whiteboards can also be put to good use.

Example: 10 participants + speaker and 90 minute duration

Content	Method/action	Tool	Time [min]
Welcome Objectives and content agenda	Lecture by speaker	Presentation Audio	5
Content according to the agenda – part I	Speaker communicates the content but the participants can also contribute additional content	Presentations Surveys Sharing applications	20
Discussion I	Speaker initiates the discussion with a trigger question, participants involve themselves in the discussion	Chat Audio Whiteboard	15
Content according to the agenda – part II	Speaker communicates the content but the participants can also contribute additional content	Presentations Surveys Sharing applications	20
Discussion II	Speaker initiates the discussion with a trigger question, participants involve themselves in the discussion	Chat Audio Whiteboard	10
Decisions and results	Speaker summarises the results from the discussions	Chat Audio Saving the results	10
Recap/conclusion	Speaker recaps the content and results and indicates further action after the webinar (e.g. other training courses)	Chat Audio	10

Large groups with 50+ participants:

For larger groups, the focus should primarily be on presentations of the content. However, a strictly time-limited opportunity should be given for questions in the chat or by phone and the completion of surveys. Interactions such as the whiteboard, discussions, sharing of applications and complete feedback sessions are not beneficial in larger groups since they require a great deal of time. They would waste a lot of time in comparison with the total time available which could potentially be better used purely to impart knowledge.

Example: 50 participants + speaker and 90 minute duration

Content	Method/action	Tool	Time [min]
Welcome Objectives and content agenda	Speaker	Presentation	5
Content according to the agenda – part I	Speaker conveys the content	Presentations Surveys	15
Question session	Speaker poses questions and participants answer, participants ask questions	Chat	10
Content according to the agenda – part II	Speaker conveys the content	Presentations Surveys Sharing applications	15
Question session	Speaker poses questions and participants answer, participants ask questions	Chat	10
Content according to the agenda – part III	Speaker conveys the content	Presentations Surveys	15
Question session	Speaker poses questions and participants answer, participants ask questions	Chat	10
Recap/conclusion	Speaker recaps the content and results and indicates further action after the webinar (e.g. other training courses)	Chat Presentation	10

5.6 Design variants for input and stimuli in webinars

Depending on the objective, the time available and the number of participants, webinars can be designed in a variety of different formats. Correspondingly varied stimuli and input from the speaker, the participants and a possible co-moderator can thus be used. A few fundamental variants are set out in more detail below:

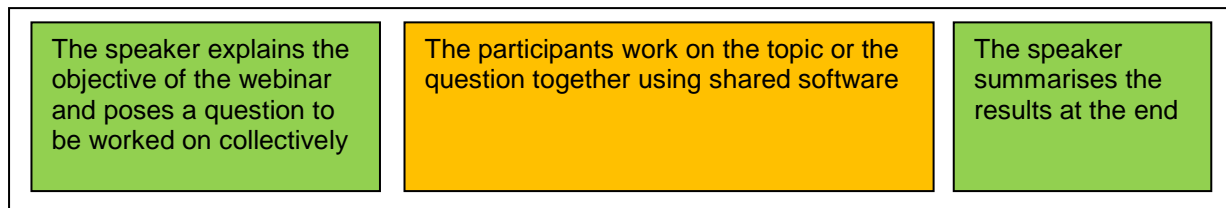
Webinars for imparting knowledge

1. Conventional variants with an input phase and a subsequent exchange and questions in chat

The speaker gives input on the content (e.g. by means of a PowerPoint presentation/PDF, use of the whiteboard, showing a video or files/applications)	The participants get involved by means of the chat or phone in the form of a discussion or asking questions
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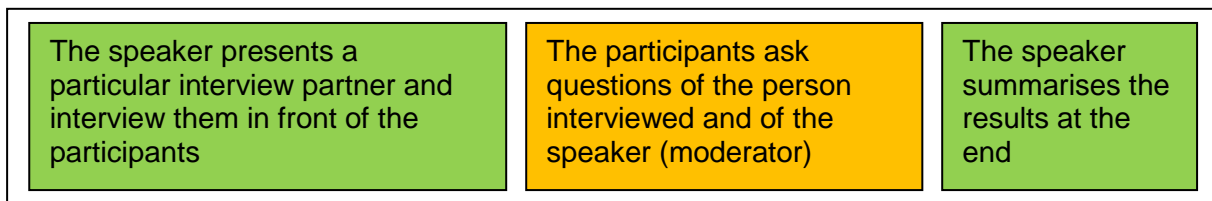
For this form of webinar design, you should consider in advance which media you want to use for communicating the content. Owing to the long speaking times for the speaker, consideration should be given to whether in particular other media than a PowerPoint presentation should also be used. Thus, for example, a whiteboard or flip chart can be used during a webcam session in order to discuss content, or connections can be elaborated on graphically on the webinar room's whiteboard tool or the content can be underpinned with a video.

2. Variant with collective development of a theme using shared software



This form of webinar design is comparable to brainstorming using cards in a conventional seminar. All participants use their knowledge to contribute to answering the question posed by the speaker. The entire group of participants thus works collectively on the prescribed topic under the speaker's supervision. The speaker (moderator) meaningfully sorts the answers and aspects contributed and summarises the results. From a technical standpoint, the collaboration takes place via online-based tools which can be used by everyone involved. For this, there is usually the option of setting the document to be worked on to "public" under the setting so that anyone who has the appropriate link can work on the document. Relevant tools can be found at: prezi.com, groupzap.com, docs.google.com.

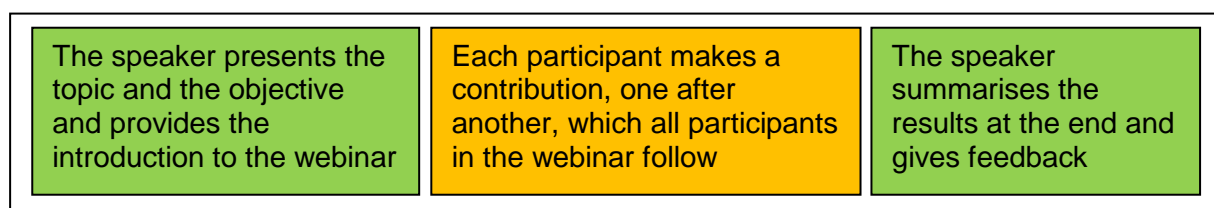
3. Interview-based variant



In this form of webinar design, the input is not provided by the speaker as in variant 1, but rather they ensure that the input is provided by another person by means of an interview. So, for example, the speaker can call in an expert who has worked extensively with the content and question them. At the end of the interview, the participants have the chance to put questions to the person interviewed using Voice over IP or a conference call. At the end, the speaker summarises the results.

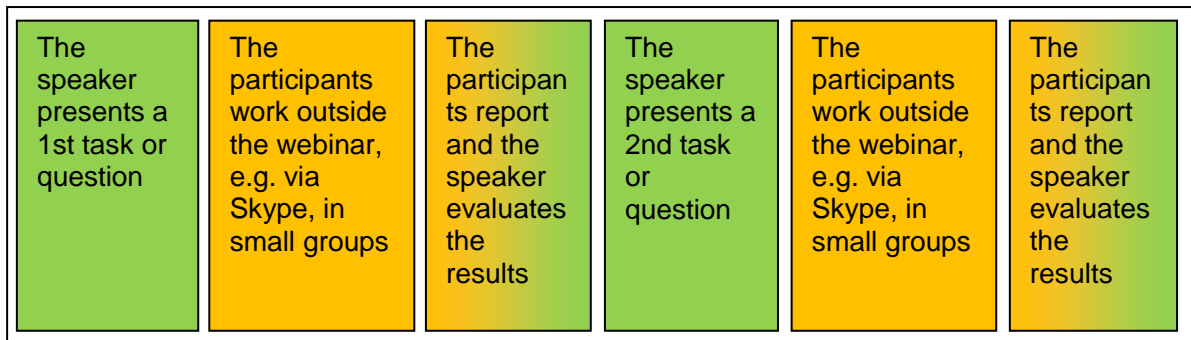
Webinars for exchanging and discussing information and experiences

4. "Cross-participant involvement" variant



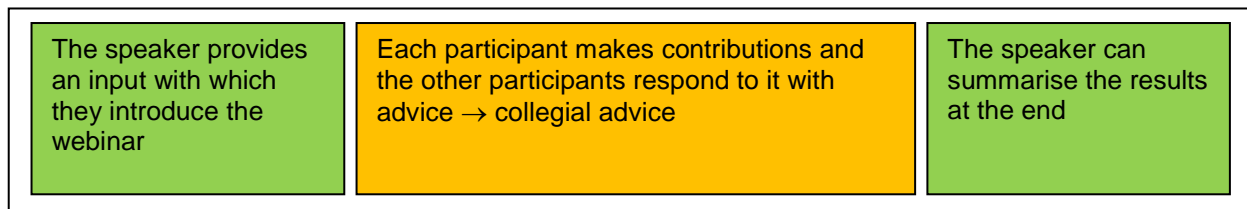
In this form, all participants in the webinar are prompted to participate in the development of the topic with regard to content. Each individual participant has speaking enabled one after another and makes a contribution in their fixed speaking time in which they report on their experiences and contribute their knowledge, and can pose open questions. Following the contribution, there is a short coaching session and feedback for the entire participant group given by the speaker (moderator). During the course of this final part, the speaker deals in particular with problems and open questions from the individual participants and works through these for and sometimes with the group. This variant should be used with groups with max. 15 participants so that each participant can be given an appropriate amount of speaking time.

5. "Small group and team work with extra conference call" variant



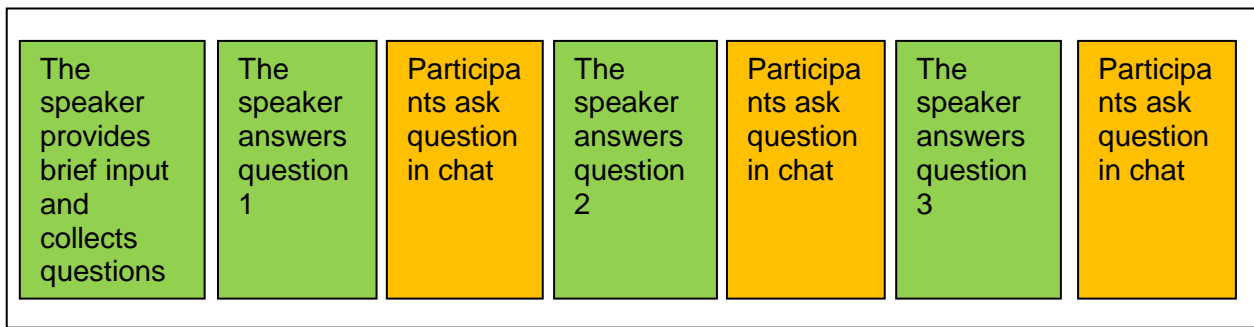
To begin with, the speaker gives a brief stimulus, e.g. by posing a question or giving a task. The webinar is then suspended for a fixed amount of time and the participants are then sent to exchange ideas with one another in small groups (3-4 participants) or in tandem (2 participants) in separate Skype conferences or, if the webinar room has side rooms, in these. The speaker determines the groups because otherwise it would take too much time for everyone to find team partners. For setting tasks, the speaker can help themselves to a variety of toolkits in the webinar room or can use other creative options (e.g. short video). Once the participants have exchanged ideas in their groups, they all meet again in the webinar room, the results are presented group by group, and the speaker evaluates the results. There is then a second round of work. This variant, representing a combination of a webinar and individual work phases can potentially cover longer than the usual max. time of 120 minutes. It can be extended up to an online full day seminar.

6. "Collegial advice" variant



This variant is only suitable for small participant groups of up to max. 5 participants since it needs a lot of time for the individual participant contributions and the exchange about the individual aspects/content. The speaker provides the input and thus encourages the discussion which is intended to be an exchange of advice (they only participate in the proceedings with their own arguments). At the end of the webinar, depending on the results, the speaker can recap these one more time for everyone. **Note:** such an exchange of advice with a small number of participants can potentially also forego the use of webinar rooms for the exchange and simply use a conference call. Implementation in webinar rooms suggests itself in particular if the exchange requires moderation and a visualisation of individual aspects.

7. "Question and answer" variant



This variant is particularly suitable for larger groups of participants up to max. 25 participants and helps to ensure that all of the participants have the chance to participate according to their needs. The progress of each individual is supported because each participant question is answered in detail. The other participants also benefit from the others' questions and the corresponding answers. In addition, they have the option of asking more in-depth follow-up questions (in particular if an answer was unclear). Questions which require lengthy answers and which are not suitable for answering in large groups should be deferred and answered by email following the webinar. Above all, it is necessary to keep an eye on the time in order to answer as many questions as possible in the time available (cf. Alke, 2016)

5.7 Preparation of webinar content as a presentation

With regard to the preparation of webinar content as a presentation, there are two aspects to take into account first of all. On the one hand, the amount of time available and, on the other hand, the number of participants (possible time which must be estimated for questions etc.). There are a few aspects with regard to the preparation of knowledge content for webinars, in particular for the preparation of presentations, which must be taken into account in order to convey the greatest possible amount of content and achieve the desired learning success:

Slide 1 - Title

1. An appropriate and attention grabbing title which makes the participants curious should be on the first slide.
2. In addition, if desired, the speaker and/or webinar provider's logo (their institution) and the name of the speaker can be indicated on the first slide.
3. Dates and other comments should be avoided.
4. A white background should be chosen, without background images and/or graphics.

Slide 2 - Overview of the content

1. On the 2nd slide there can be, but does not have to be, an overview of the topics/content to be covered in the webinar
2. The overview of the content should be clear and brief and should set out the core content in keywords
3. The content mentioned in the content overview should also appear in the webinar content
4. The overview of the content provides the structure for the webinar

Slide 3 to..... - Knowledge content

The core content presented in the content overview (in the appropriate order) should be presented in the subsequent slides. In general, when creating the slides, care should be taken to ensure that the slides

1. **Are incomplete**, i.e. it is better to use keywords, maxims or a telegram style
2. **Are simple in structure**, i.e. as little information as possible and as much as necessary for the greatest accuracy.
3. **Are attractive**, i.e. not just text and not too long text passages, images which are not too colourful are used, no poor layouts on the slide, etc.
4. **Use fonts such as** Arial, Verdana, Times New Roman, Garamond in order to ensure readability.
5. **Do not have borders and footers or a continuously** displayed logo **or date** and the slide background is generally white.
6. **Have additional and supplementary tools** such as documents, applications and the whiteboard enabled for use

In addition, according to Richard E. Mayer, there are a variety of principles for the multimedia uses of presentation and for facilitating media learning which should be taken into account when creating presentations. These are set out in more detail below, along with what should be specifically borne in mind when preparing a presentation.

1. Coherency principle:

Better learning performances are achieved for the participants if the content is kept to what is important and insignificant content which is not imperatively required for achieving the learning objective is removed from the presentation, for example

- Leave out (delete) the date, footers and page numbers
- Leave the background of the slides blank
- Leave logos out and only use them in case of necessity in a targeted manner
- Leave form elements out and only use them in case of necessity in a targeted manner
- Leave out irrelevant images
- Leave background music out

2. Signalling principle:

Better learning performances are achieved for the participants if signs particularly highlight the structural order of the core content. In presentations, this can be achieved by ensuring that every slide has a clear and unambiguous title and by particularly emphasising certain key terms. The central course content should be indicated.

- In order to make the structural order transparent, an overview (table of contents) of the content of the webinar should be provided on the second slide after the first title slide
- The central message of each slide should be expressed in a sentence or a statement in the title of the slide
- Key terms in slides can be particularly emphasised by underlining them, putting them in bold or through numbering
- Links and connections can be highlighted, in colour for example

3. Personalisation principle:

Better learning performances are achieved for the participants if the content and information is composed in an uncomplicated style. The result is that social signals, such as colloquial expressions with more ordinary emphasis, slip into the communication of the content, causing a social reaction for the participants and thus provoking their attention and feedback. The participants establish a connection to themselves and are better able to memorise the content.

- Address the participants directly
- Use short sentences
- Express statements and information informatively, precisely and succinctly
- Avoid excessive information and present the core content which focuses on the learning objectives
- Don't speak in the third person

4. Multimedia principle:

Better learning performances are achieved for the participants if the content consists of a combination of images and words. Presentations with pure text content can potentially have a wearying effect on the participants.

- Images should be used to enrich and visualise the content
- Multimedia elements should not obscure the content
- Use graphics and images in order to clarify relationships between topics
- Use interactive applications and simulations in order to create gateways to tasks
- Use diagrams and tables in order to make relationships apparent
- Use signalling in images and graphics in the form of arrows and coloured highlighting

5. Segmentation principle:

Better learning performances are achieved for the participants if the content is presented in easy to learn sections. It is thus possible to react in a targeted manner to the participants' learning speed and receptiveness.

- Each important statement should be presented on a separate slide
- Present statements so that they allow for interactions such as chatting
- Avoid an information overload
- In animations, give the participants the opportunity to participate and thus the opportunity to help shape the speed of the presentation

6. Spatial proximity principle:

Better learning performances are achieved for the participants if information is located close to the images.

- Words and explanations should always be placed close to the associated images and graphics
- Add labels to images and graphics where applicable
- Avoid jumping back and forth between text and images (cf. Rey 2009)

Summary slide

The last slide should summarise the core statements once again and briefly present them in keywords.

5.8 Webinar progress - work steps

Step 1: Consideration of which tools will be useful and necessary in order to meaningfully convey the course content

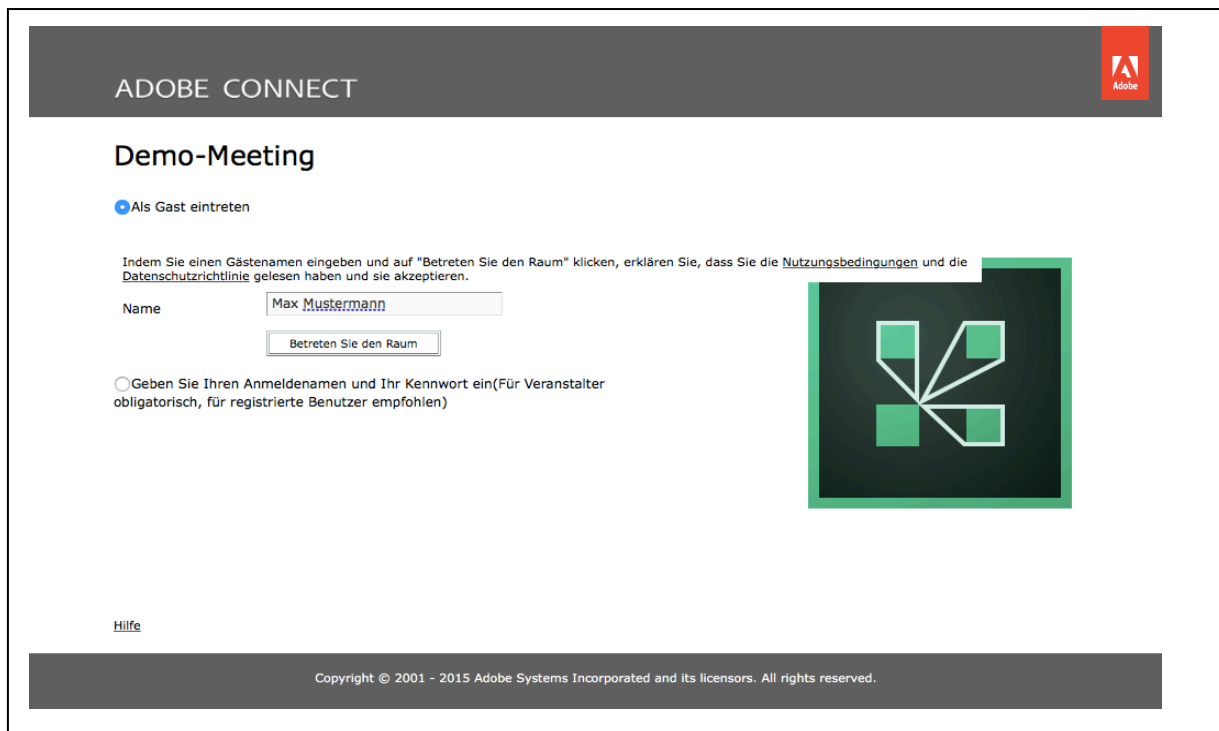
Step 2: Buy or lease webinar software

Step 3: Create webinar content (presentations, PDFs, polls)

Step 4: Set up the meeting room/upload content with possible support from a technical assistant

Step 5: Invitation by sending an access link and, where applicable, conference call data with possible support from a technical assistant

Example link: <https://meet76684888.adobeconnect.com/XXXXX>



The screenshot shows the Adobe Connect registration interface for a 'Demo-Meeting'. At the top, the Adobe Connect logo is visible. The main heading is 'Demo-Meeting'. Below this, there are two options for entering the room: 'Als Gast eintreten' (selected) and 'Geben Sie Ihren Anmeldenamen und Ihr Kennwort ein'. The 'Als Gast eintreten' option includes a text input field for the name, which contains 'Max Mustermann', and a 'Betreten Sie den Raum' button. A disclaimer states that by clicking the button, the user agrees to the terms of use and privacy policy. A 'Hilfe' link is located at the bottom left. The footer contains the copyright notice: 'Copyright © 2001 - 2015 Adobe Systems Incorporated and its licensors. All rights reserved.'

Step 6: Click the link and enter your own name on the resulting page (participants and speaker) → see illustration below as an example

Step 7: Click on "Enter the room"

Step 8: The webinar is conducted after entering the room

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