

#STRUKA



SVS X ASS

# DRinVET

## How to ...

*Best Practice in Blended Learning (mixture of e-learning and teaching in a classroom) of visual testing of welded joints*



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# Summary

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- 01 Learning Management System LMS
- 02 Online assessment with LMS
- 03 Physical classroom, practical exercises in the testing lab





# Online learning using LMS

In order to set up the online learning with the LMS the teacher sends a link to access the LMS tool online to all participants. In our case we have the possibility to use the existing contents from the German welding association DVS.

The screenshot displays the DVS GSI SLV LMS interface. The top navigation bar includes the DVS logo and the text 'GSI SLV'. Below the navigation bar, there is a breadcrumb trail: 'Lehrgangsangebote > SLV Duisburg > ZFP > VT > VT Sichtprüfung Stufe 1 und 2 - Schweißverbindungen - (w) e-Learning'. The main content area is titled 'Lehrgangsforum' and 'Lernmaterialien und Tests'. It features four tiles representing different learning resources:

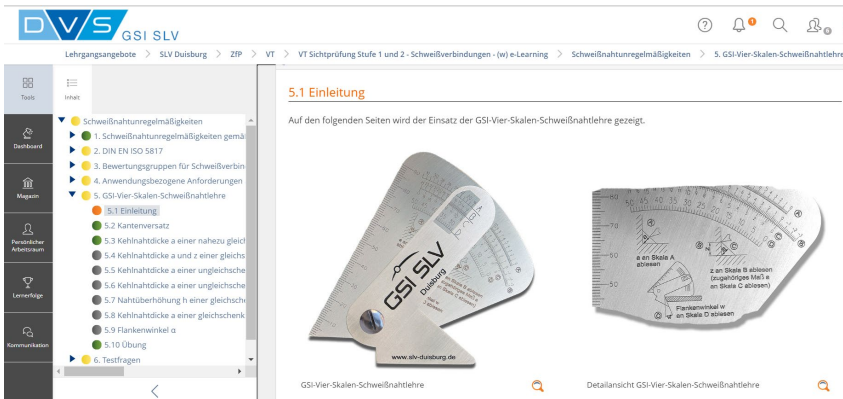
- Abkürzungsverzeichnis**: A yellow tile with various symbols like  $\Phi$ , eV, K, Ev, and cd.
- Einführung Sichtprüfung (VT) Stufe 1 und Stufe 2 Produktsektor Schweißverbindungen**: A grey tile with a rainbow spectrum image.
- Physikalische Grundlagen der Sichtprüfung**: A grey tile with a diagram showing light rays reflecting off a surface.
- Test zur Lerneinheit "Physikalische Grundlagen der Sichtprüfung"**: An orange tile with a large white question mark and a green checkmark and a red X.



# Online learning using LMS

The teacher assigns the lessons to be learned to the student. The LMS also contains explaining videos, the students can watch for a better understanding of the topic.

In this case for example, how to use a Welding seam gauge.





# Online assessment using LMS

When the students have finished to learn and understand the requested lesson, they do the online assessment in order to check if they have understood the topic. If they have too many mistakes, they can go back to the LMS as often as they want.

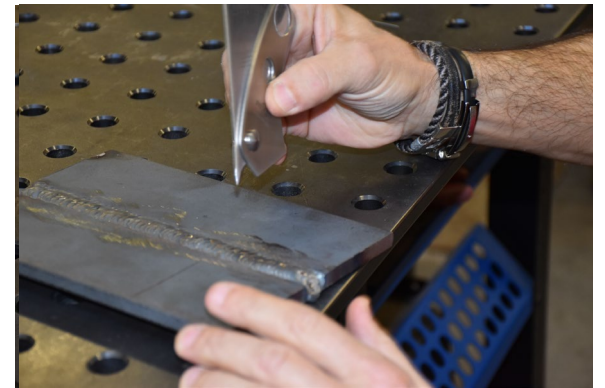
If they have further questions, they can ask them at the physical workshop in the testing lab.

The screenshot displays a web-based LMS interface. At the top, there is a navigation bar with the logo 'DVS GSI SLV' and a breadcrumb trail: 'Lehrgangangebote > SLV Duisburg > ZIP > VT > VT Sichtprüfung Stufe 1 und 2 - Schweißverbindungen - (w) e-Learning > Schweißnahtunregelmäßigkeiten'. A sidebar on the left contains a menu with categories like 'Dashboard', 'Magazin', 'Persönlicher Arbeitsraum', 'Lernerfolge', and 'Kommunikation'. The main content area shows a quiz titled 'Schweißnahtunregelmäßigkeiten' with a 'Druckansicht' (Print view) option. The quiz is divided into sections, with '5.10 Übung' selected. Under this section, 'Frage 1' is highlighted. The question text is: 'Welche Bewertungsgruppen werden in der DIN EN ISO 5817 vorgegeben?'. Below the question are four radio button options: 'B, C, D', 'A, B, C, D', 'A, B, C', and 'X, Y, Z'. An 'Auswerten' (Evaluate) button is located below the options. A large blue question mark icon is visible on the right side of the question area. At the bottom of the question area, there is a link that says 'Thema wiederholen' (Repeat topic).



## Physical classroom / practical exercises

In the physical classroom the teacher first gives the students the possibility to ask their questions and to discuss the online assessment. Then they move for the practical exercises to the testing lab, where they have to perform visual testing of different welded parts, following the inspection instruction.



*Any Questions?*



*Thank you.*



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