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Modularisation of Apprenticeship Training Status quo Analysis and Expert Survey

The current study consists of two parts. The first part deals with the effects modularisation has on the enterprise-based and school-based parts of apprenticeship training. Among others, the question will be examined as to which of the currently existing apprenticeships (as of Nov. 2005) can be modularised. Attention will also be given to the questions of how the apprenticeship examination should be organised and of how the *Berufsreifeprüfung* can be accessed within the framework of the training (research brief 20). The second part of the study summarises the results of a company survey in which the findings from the first part of the study were discussed with experts involved in apprenticeship training (research brief 21).

Part 2: Expert Survey

2.1 Project goals

The primary goal of this project, which was commissioned by the Federal Ministry of Economics and Labour (BMWA) and the Federal Economic Chamber (WKÖ), was to conduct a **needs and acceptance analysis** of the intended modularisation of apprenticeship training. To achieve this goal, insights gained from the study *Modularisation of Apprenticeship Training* (see *ibw-research brief 20*) were discussed with 146 experts involved in apprenticeship training, including representatives from training enterprises, part-time vocational schools, the school administration, the social partners, and the apprenticeship offices. Moreover, they were asked to share their opinions about the weaknesses and potential improvements of the present concept. A further goal of this project was to **improve the level of information** of the target groups concerning the intended modularisation. In the course of the interviews it was possible to gain more comprehensive information, clarify misunderstandings and open up new perspectives.

The guideline for the interviews, as worked out in cooperation with the contracting authorities, consisted of **five blocks of questions**. The present *research brief* shows the **most important results** of each block.

2.2 Main results

The **first battery of questions** was concerned with the **structure and the design of a modular apprenticeship**.

1. Half of those asked (n=143) completely agreed with the statement that the amalgamation and clustering

of apprenticeships with similar content is reasonable (the underlined portion of the sentence relates to the question in the interview guideline). Another 45% agree with the statement at least partially. A mere 4% do not agree with the statement, and 1% is unable to give an opinion. The overall high degree of acceptance can above all be attributed to the representatives from the business sector, 71% of whom fully agree with the statement. The representatives from the vocational schools and the school administration view the statement with a bit more scepticism. From this group 60% only partially agree with the statement, and every tenth interviewee completely disagrees with the statement. A majority of the representatives of the social partners and the apprentices also only find the amalgamation of apprenticeships with similar content to be partially reasonable (60% and respectively 50%), whereby the low number of interviewees must also be taken into consideration.

2. In addition to how reasonable an amalgamation of apprenticeships with similar content would be, the interviewees were also asked about the practicality of structuring the apprenticeships in three parts with a basic, main, and special module. 54% of the interviewees (n=144) fully agree with this statement. More than two thirds of the interviewees (36%) only partially agree with this statement. Eight interviewees, or 6%, found such a structure to be fully unpractical while a further 5% are unable to give an opinion. This structure is most favoured among the apprentices. 62% believe that structuring apprenticeships into basic, main and special modules would be completely practical. The representatives of the social

partners and apprenticeship offices similarly support this structure (60%). 55% of the representatives from the vocational schools and the school administration share this opinion. The interviewees from the business sector that either fully or partially agree with this statement are approximately balanced at 46% and 45% respectively. The greatest lack of agreement with this statement comes from the social partners, followed by the representatives from the vocational schools and the school administration, of whom 10% and 7% respectively rated it as not applicable.

3. The third statement that the interviewees were asked to rate was concerned with the duration of the individual modules. They were asked to give their opinion as to whether the intended duration of the module corresponds to the training requirements. Almost half (46%) of those interviewed (n=142) only partially agree with this statement. A bit more than one third (35%) of the interviewees completely agree with the statement, while 6% are of the opposite opinion. The number of responses stating that it is not possible to rate the statement is also relatively high with 13%. It was often stated that this was due to a lack of practical experience.
4. Since the actual novelty of the modularisation would be the introduction of special modules, the interviewees were also asked to give their opinion regarding the reasonability and usefulness of such modules. In comparison to the previous statements, this statement was met with the highest degree of approval. 65% of those interviewed (n=142) rate the creation of special modules as very reasonable, a further 26% partially agree with this statement. 6% see no use for the special modules and a further 3% offered no opinion.

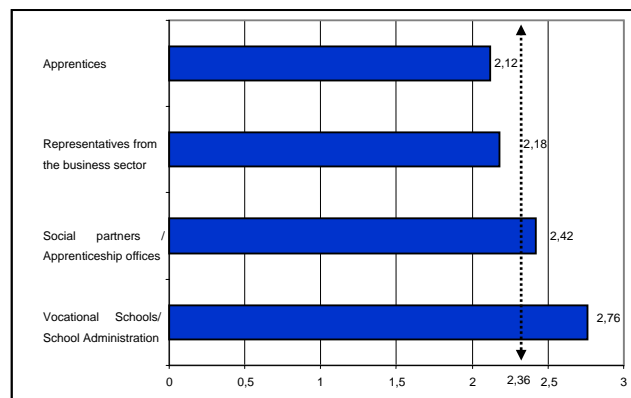
After evaluating the core points of the modular apprenticeship – clustering, division into three modules, module duration, introduction of the special module – representatives from the business sector and the vocational schools were asked for possible content for special modules. The responses included both additional, deeper knowledge and skills for the respective vocational branches (e.g. automation technology for electrical engineering professions) as well as suggestions for subjects from “outside” of the vocational branch (e.g. marketing and sales know-how for technical commercial professions). Of the 100 interviewees who answered this question and support an introduction of special modules, 82% express a desire for content from their own area. 62% could imagine content from other branches as well.

The high degree of approval for the introduction of special modules can also be recognised by the answers given to the question: Would training apprentices in special modules correspond to the needs of the business? 86% of those interviewed answered this question with yes, with only a mere 14% being of the opposite opinion.

A majority of the apprentices, who were also questioned, would take advantage of the chance to complete special modules. 89% of the 26 apprentices interviewed would choose a special module provided appropriate content was offered, 12% were not interested or did not give an answer. With regards to content, there is mainly an interest in special modules that provide deeper knowledge and skills for the vocational branch being trained in (70%).

At the end of the first battery of questions, the interviewees were asked to rate the modularisation concept as a whole. The ratings were given according to the school grading scale (with 1 being the best possible grade and 5 being the worst). The average rating of all those questioned (n=129) is 2.36. The best ratings were given by the apprentices with 2.12 and the representatives from the business sector with 2.18. With an average rating of 2.42, the social partners and apprenticeship offices gave a rating just above the average, while the representatives from the vocational schools and school administration gave the worst rating with an average of 2.76 (see Illustration 1).

Illustration 1: Overall rating of the modularisation concept



Source: ibw, n=129, average, 1=very good, 5=not sufficient

The focus of the **second battery of questions** was the **possible modularisation variations**. Two thirds or 98 of the interviewees answered the question concerning further conceivable modularisation variations. The following suggestions were made:

- **Gradation and exit:** Representatives from all the groups interviewed express a desire for gradation of the apprenticeship including a chance to exit the course of study. After the basic module, an exam should be given that makes it possible for the apprentices to exit the program with some form of certification. Those in favour of this feel that particularly for weaker learners it would be a chance to achieve a first level certificate.
- **Main modules of varying duration:** Instead of special modules, main modules of varying duration should be offered. This roughly corresponds to the current model of the group apprenticeship with a ba-

sic training and a specialisation. Thus it would be possible to profit from the advantages of a specialisation without having to implement a complex system such as the modularisation.

- **Smaller module units – required and required elective modules:** The module units should be smaller, particularly within the current model. Thus the apprenticeship mechatronic engineer could be divided into seven modules. Required electives could be offered in addition. The apprentices would have to select and complete a certain number of modules from a pool of possible modules. This would also make a special focus possible.
- **Other module compositions:** The vocational school sector suggests reversing the “pyramid structure” (“from the broad to the deep”) of the modularisation concept presented in this paper. Starting with company specific training, the apprentice should gain the broadest possible understanding of the profession during the course of their education (“from the deep to the broad”). According to its advocates, this model will put the apprentice in a position to understand relationships and acquire new knowledge.
- **Special module as CVET:** According to the opinion of numerous interviewees, apprentices should first be able to complete the special modules within the framework of their CVET. The duality should also be ensured within the framework of this special training, but the theoretical portion should also be made possible in institutes for adult education.

A number of those interviewees who did not propose an alternative module variation stressed that the modularisation should be seen as a further option for the design of apprenticeships. They should therefore be implemented where they are possible and reasonable. Should a clustering not be possible, then in future the proven apprenticeship alternatives of individual special-focus and group apprenticeships should continue to be used.

The **third battery of questions** was concerned with the **goals of the modularisation**. The interviewees were asked to give their opinion as to how readily they felt the goals being strived for can be achieved. 59% of those questioned (n=141) are of the opinion that the goal of increasing flexibility while establishing new educational content through modularisation can be achieved. 56% share the view of the concept author, and believe that modularisation will make it possible to react more quickly and efficiently to economic changes and the latest needs of the various vocational branches. The goal of “cleaning house” is met with more scepticism. Only 46% of the interviewees believe that this goal can be achieved through modularisation.

Within the framework of the assessment of the Vocational Training Act, many representatives from the voca-

tional schools and provinces point out the increased organisational and financial impact of modularisation. The numerous possible combinations would lead to much greater administrative effort. In addition, class building, particularly for the special modules, would be more difficult. An extra class would have to be set up in the event that there are only a limited number of interested students. This could lead to a massive increase in costs. Advocates of modularisation constantly pointed out in the cost discussions that in future it will be necessary to update the apprenticeship landscape as well as maintain the attractiveness of the dual training, to introduce new apprenticeships and respectively modernise existing ones. Such measures will also incur extra costs. It is therefore absolutely necessary before carrying out any restructuring to determine if in such a case a modularisation or the introduction of a new individual apprenticeship would be more reasonable and financially less expensive.

The **fourth battery of questions** therefore aimed to determine the advantages and disadvantages of the modular apprenticeship vs. individual apprenticeships from the viewpoint of the interviewees. Numerous representatives from the business sector and the social partners see the higher quality of training, which would above all be based on the broader basic training and a more focussed special training, as the decisive advantage of the modularisation. The variety of module content would also have a positive effect for the enterprises since it would better be able to cover their needs, as well as for the apprentices, who could design their training more flexibly according to their own qualifications and preferences. Discussion partners from the vocational schools and the school administration place focus above all on the use of synergies in the basic module. Modularisation could result in the vocational schools being seen as centres of expertise, allowing them to better position themselves as providers of vocational education. Increasing the duration of the apprenticeship by the time for the special modules would also bring advantages in terms of the distribution of the learning material. The basic module would experience an “easing” of the curriculum since the more special content would rather be covered within the framework of the special modules. This would allow the core material to be covered more deeply in the basic modules. With regards to the costs, varying estimates are given by the representatives from the vocational schools. A number of those questioned believe the modularisation will conserve costs, so that cost savings will be able to be achieved.

The opposite argument, namely that the implementation of the modularisation will result in considerable cost expenses, is given not only by numerous interviewees from the vocational schools and the school administration, but also from the other target groups. The representatives from the vocational schools also expect large numbers of students in the basic module classes, which would make

teaching more difficult. Sceptics further fear that the existence of vocational schools in smaller provinces, which would not be able to offer all the main and/or special modules, could be threatened. This would result in the apprentices having to travel further for their vocational school training. The need to stay at boarding schools would also result in higher costs. The necessary improvements to the infrastructure and equipment would also have a financial impact on the vocational schools. Furthermore, specially trained teachers would also be required. Those opposed to modularisation, especially representatives from the business sector, also fear that the apprentices might be overburdened. Due to the ever decreasing entry qualifications, the majority would not be in a position to complete a superior training.

During the cost discussions, the topic of limiting the vocational school instruction also arose. One option that was suggested was to do away with the vocational school instruction during the special modules, and another suggestion was to exclusively offer job-specific subjects in the special module.

72% of those questioned (n=130) clearly disagree with the idea of completely doing away with the vocational school instruction in the special module. This would only be a conceivable option for a mere 18%. A further 11% could not offer an opinion. As to be expected, the representatives from the vocational schools and the school administration reject this suggestion particularly strongly. 90% of those interviewed from this target group are against doing away with the vocational school instruction. Just over two thirds of the representatives from the social partners and apprenticeship offices as well as the apprentices interviewed share this opinion. Amongst the interviewees from the business sector, the rejection is comparatively low with 60%, nevertheless in this group as well the vote is clearly against this suggestion. The special module training without the accompaniment of vocational school instruction would only be conceivable for a mere quarter of those interviewed. Concerning the second suggested alternative to exclusively offer job-specific subjects in the special module, the pro and contra votes are roughly equal. 43% of those interviewed (n=129) hold the suggestion for a conceivable possibility, while 42% are against it. 16% are unable to offer an opinion. The greatest advocates of this suggestion are the representatives of the social partners and the apprenticeship offices (61%), followed by the apprentices (58%) and the representatives from the business sector (41%). Two thirds of those interviewed can not imagine limiting instruction to just job-specific content.

In the **fifth and last block of questions** from the interview guideline, the interviewees were asked to **evaluate the new final apprenticeship examination mode**. The emphasis was on reasonability, relationship to the training and practicality.

As a whole, the experts interviewed have a positive opinion of this examination mode. More than three quarters (78%) of those interviewed (n=125) believe it to be reasonable, and approximately every tenth interviewee (11%) is of the opposite opinion.

The opinion of those interviewed (n=120) who felt the examination mode is suitable for the training was similarly high with 72%. In comparison, 8% of all those interviewed are of an opposing opinion. 52% see no problem with regards to the practicality and feasibility of an enterprise-specific work project, 12% are not able to conceive of such an examination mode. In terms of feasibility, the group of those interviewed who are unable to offer an opinion is particularly high. They feel they would need more detailed information or a concrete example before they could offer an opinion.

The interviewees from all the target groups all regard this mode of examination as reasonable. Solely for the representatives from the social partners and the apprenticeship offices are the pros and cons equal, each with 47%. Concerning the relationship of the examination to the training, the largest scepticism in the target group comparison is also among the representatives for the social partners and the apprenticeship offices. 15% do not believe this mode is suitable for the training. Emphasis must be given to the fact that due to the small sample size, this value should not be given much weight. The majority of the same group of interviewees regard the suggested examination process as unpractical (46%). Scepticism among each of the other groups with regards to the practicality of this mode of examination is less than 10%.

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