

Evaluating dual apprenticeship effects on youth employment: a focus on the mechanisms

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Abstract

The dual model of apprenticeships has attracted the attention of national governments globally, particularly in low- and middle-income countries. While there is wide international consensus about the positive effects of the dual model on youth employment in its home countries, there is little evidence on the necessary contextual conditions for the programme to deliver its expected results in recipient countries. Drawing on the realist evaluation approach, we aim to test the underlying assumptions of the model and to empirically scrutinize under what contextual conditions the programme mechanisms operate or not for its beneficiary population in the case of Mexico. We test these assumptions by analysing, through quantitative and qualitative methods, the characteristics, motivations and logics of action of apprentices and the contextual conditions that shape their decision-making process. The results show that many of the participants are not intrinsically motivated by the situated learning opportunities offered by the dual model, that the quality of the training varies largely across companies, that schools struggle to integrate theoretical and practical learning within the programme, and that continuation of studies is a highly desired outcome for some of the apprentices. Our research contributes to the comparative education debate on how institutional, social and economic contextual conditions affect the effectiveness of the Germanic model of dual apprenticeships when transferred to different national settings, and it informs better programme management and policymaking in the recipient countries.

Introduction¹

The dual model of apprenticeships has attracted the attention of national governments globally, particularly in low- and middle-income countries, because of its alleged positive effects on student learning of occupational skills, the early labour market integration of young people, and the contribution of TVET graduates to the productivity of companies in countries like Germany, Switzerland or Austria (Hoeckel & Schwartz, 2010). The dual model differs from the market model of apprenticeships that is typical in the UK in the combination of strong school-based education with vocational training in the workplace; the intense coordination between social partners and the state in the governance of the system; and highly demanding occupational standards based on broad profiles of occupational competence (Pilz, 2009; Ryan & Unwin, 2001).

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While there is a wide international consensus about the strengths of the dual model of apprenticeships in its home countries (Steedman, 2012), there is also extensive evidence on the difficulty of transferring this model at large scale and with the same standards of quality to other political, economic and cultural contexts (Langthaler, 2015; Maurer & Gonon, 2014; Valiente & Scandurra, 2017). Our paper contributes to this body of literature by analysing the re-contextualization of the dual model of apprenticeships in Mexico. Drawing on the realist evaluation approach, we aim to test the underlying assumptions of the model and to empirically scrutinize under what contextual conditions the programme mechanisms operate or not for its beneficiary population. Based on the specialized literature, we identified three explanatory mechanisms of the effects of the dual model on youth employment: situated learning, skill content and institutional context. The combination of quantitative and qualitative methods in the analysis of the characteristics, motivations and logics of action of apprentices allows us to show under what contextual conditions dual apprenticeships in Mexico will be able to deliver its expected benefits for young people.

Realist evaluation approach

There is a general consensus in the comparative literature on the positive effects of dual apprenticeships for school-to-work transitions. However, there is limited evidence on the mechanisms that may explain this pattern and, more importantly, on the contextual factors that mediate the effects of dual apprenticeships on the employment prospects of young people. Quasi-experimental approaches have established themselves as the dominant paradigm in impact evaluation studies, but quasi-experimental impact evaluations of the effects of apprenticeships on individuals are rare (Tripney & Hombrados, 2013) and face many methodological challenges (Wolter & Ryan, 2011). Despite these methodological challenges, some studies have tried to estimate the economic effects of apprenticeships on participants. When compared to full-time vocational schooling, the evidence seems to indicate less long term unemployment rates for those coming through apprenticeships in countries like France and the Netherlands (Groot & Plug, 1998; Mendes, Bonnal, & Sofer, 2002). However, the effects in terms of employment and earnings vary largely depending on the scale and type of apprenticeship and the characteristics of the beneficiaries (i.e. gender), making the results for specific countries and programmes difficult to generalise (Ryan, 1998; Samek et al., 2013; Wolter & Ryan, 2011).

This variability of beneficiaries and institutional settings poses a serious problem to quasi-experimental designs, as the main aim of this evaluation approach is to determine if apprenticeships *per se* generate significantly better individual outcomes than vocational schooling (what works?). Also, given the significant contextual differences between donor and recipient countries, this evaluative approach can offer very little to international debates on the policy transfer of dual apprenticeships. Our realist approach to the evaluation of dual apprenticeships differs in some fundamental aspects to quasi-experimental designs, the most important being the way contextual differences are taken into account in the explanation of programme outcomes.

Realist evaluation studies understand policy programmes, in our case dual apprenticeships, as hypotheses about social betterment that need to be unpacked and tested through the

analysis of the operating social mechanisms in specific contexts (Pawson, 2006). While other theory-driven evaluations also recognise the importance of social mechanisms to explain programme outcomes (Blamey & Mackenzie, 2007), the realist approach provides a specific way of thinking about 'contexts' as triggers of these social mechanisms and outcomes (Westhorp, 2014). Focusing on the interaction between context-mechanisms-outcomes allows evaluations to go beyond the simplistic question of 'what works?' and to interrogate 'how dual apprenticeships work, for whom and why they generate different outcomes in different contexts?'

As in other theory-driven evaluation approaches, the first requirement of the realist approach is to establish the theory of change (or programme ontology) of the intervention in the form of general hypotheses that need to be tested. Realist evaluations reconstruct the theoretical assumptions underpinning programme interventions to problematize to what extent the causal mechanisms that are supposed to lead to the expected outcomes are actually triggered by the social actors involved. The assumption is that the outcomes of programmes like dual apprenticeships are affected by the way individuals enact and react to the regulatory frameworks introduced by the intervention (Ball, 2011). This process is affected not only by the characteristics, motivations and rationalities of actors that are enacting the policy, but also by the context in which they develop their activity.

To reconstruct the theoretical assumptions behind dual apprenticeship programmes, we rely on the analytical efforts of Paul Ryan (2012) to synthesize the advantage of apprenticeships over full time vocational schooling in terms of employment outcomes for young people. He identifies three distinctive causal mechanisms that can explain the superior outcomes of apprenticeships: situated learning, skill content and institutional contact. The three mechanisms and the contextual conditions for their activation are explained below.

Firstly, pedagogical literature has pointed out that for some learners, apprenticeships are both more motivating and easier to undertake than the less situated learning that characterises classroom-based provision (Unwin & Wellington, 2013). For those students, the theoretical elements of knowledge are better acquired when learned through their practical application. However, this mechanism is not homogeneous among the whole student population. Some learners, particularly those with a theoretical inclination, will be more motivated and learn more effectively when dealing with abstract learning (Rauner, 2012).

Secondly, the skill content of apprenticeships will be more updated and relevant for the demands of employers because students will be exposed to the production methods and work requirements of actual workplaces (Streeck, 1989). However, the activation of this mechanism will depend on the quality of training opportunities at the workplace and the smooth integration of theory and practice by the school. Companies offering apprenticeships just as a source of low-cost labour can result in exploitative experiences for apprentices and limited skill learning (Wolter & Ryan, 2011). Also, the integration of theory and practice into a coherent learning programme is challenging for schools, which may disdain the workplace component of apprenticeships and privilege the academic approach in their practice (Achtenhagen & Grubb, 2001).

Thirdly, apprenticeships offer an institutional link with the professional world that allows young people to acquire superior information and contacts in the labour market (Ryan, 2001). However, these contacts will only be effective in the adequate sectoral and macroeconomic context. Depending on the economic cycle and the dynamics of skill supply and demand in each sector, apprentices may not be attractive to employers. Also, in the screening of candidates by employers (Spence, 1981), practices of discrimination during the selection process may emerge, thus generating unfair employment inequalities between the candidates (Fuller & Unwin, 2013; Imdorf, 2017). Furthermore, depending on the quality of the working conditions in a given labour market, the offer of jobs may not be attractive to the apprentices and they may decide to continue their studies or remain unemployed (Raffe & Willms, 1989).

Our paper seeks to determine to what extent these three explanatory mechanisms are activated and how they influence the effects of dual apprenticeships on youth unemployment in the case of Mexico. The Mexican Model of Dual Apprenticeships (MMFD, for its abbreviation in Spanish) is a particularly interesting case of study because it contributes to the comparative education debate on how institutional, social and economic contextual conditions affect the effectiveness of the Germanic model of dual apprenticeships when transferred to different national settings. Understanding the influence of different contextual factors on the activation of these mechanisms will also contribute to better programme management and policymaking in the recipient countries.

Methods and data

The paper analyses how the dual model of apprenticeships is re-contextualised in the case of Mexico. It focuses on the characteristics, motivations and logics of action of apprentices that took part in the MMFD and the different contextual conditions where they made their decisions. Following the principles of policy enactment research, our interest lies on how actors respond to the policy, which mechanisms are activated and how these mechanisms influence the effects of the policy. Hence, it is important to keep in mind that regulatory frameworks do not necessarily determine actors' responses but establish and restrict the options available, giving them boundaries within which to develop their response to the policy (Ball, 1994).

The MMFD was launched as a pilot by the Federal Ministry of Education in 2013 and sanctioned by law into an upper secondary education vocational pathway in 2015. More than 4,000 students enrol in the programme every year with the vast majority of them doing their studies at the National College of Technical Professional Education (CONALEP). The main modality of the MMFD comprises one year of classroom-based education at a vocational school and two years of vocational training at the workplace combined with some school subjects covered through blended learning. During their time at the workplace, apprentices receive a monthly scholarship of 2,000 MXN pesos (100 USD), which is equivalent to 75% of the national minimum wage. Companies are allowed to top up this amount with additional payments, but these are entirely voluntary. Women registered in industrial programmes are eligible for an additional scholarship of 600 MXN pesos (30 USD).

The selected location for the study was the State of Mexico, which was the first state in adopting the dual model and the one with the higher participation of apprentices. CONALEP authorities in the state provided the contact details of over 60 apprentices who had graduated from the programme in the year 2015/16. The list was randomly sorted and the first 25 apprentices who accepted to participate after being contacted by post and telephone were selected for the study. The fieldwork was carried out between May and June of 2017 (one year after graduation) and consisted in two phone interviews with each participant: one structured survey and one semi-structured interview. The survey was structured in five thematic blocks, which collected information on the following domains: a) socioeconomic profile of the apprentice and company characteristics, b) reasons to participate and selection process, c) satisfaction with processes (school, company and at the programme) d) self-perception of learning outcomes (occupational skills, transversal skills and attitudes, theoretical knowledge), e) labour market outcomes. During the semi-structured interviews, apprentices were asked to expand on the motivations to participate in the programme, the decision-making process, their experience with different aspects of the programme at the school and the workplace (i.e. content of learning, pedagogical support), and the process of transition after completing their studies.

Seven of the 25 participants that took part in the first round of data collection declined to participate in the second round and were replaced by other seven informants, which were recruited through the personal contacts of those participating in the study (snowballing). In total, we collected data for 32 apprentices from five of the seven study specialities offered by the MMFD. Almost half of the participants had completed their studies in the field of accounting and management, another group had done their studies in industrial production and maintenance, and a small number did informatics and electronics. Gender segregation between field of studies was large, with higher presence of female apprentices in accounting and management, and larger presence of male apprentices in industrial related studies (see table 1).

Table 1. Apprentices by field of study and sex.

VOCATIONAL STUDIES	FEMALE	MALE	TOTAL
Accounting & management	11	4	15
Industrial production	2	6	8
Industrial maintenance	0	6	6
Informatics	1	1	2
Electronics	0	1	1
Total	14	18	32

All the participants came from either medium-low or low socioeconomic backgrounds (levels C and D in the national NSC classification²) and, in the majority of the cases, the highest educational level of the parents was elementary education. In terms of the companies where they did their apprenticeship, most of them were Mexican companies, followed by American, Japanese and only a few of them were German or Austrian companies. The predominant

² See <http://nse.amai.org/niveles-socio-economicos/>

sector of economic activity of these companies was the automotive industry, followed by agricultural machinery, plastics, transportation, food, IT, hospitality and chemistry.

The large majority of apprentices were employed one year after the completion of their studies and less than one third combined work and study. The majority of apprentices were employed in the same company of their studies and one third of them worked in a different company. The vast majority of apprentices received a job offer from the dual company but one third of them rejected the offer. In terms of distribution of the employment outcomes by sex, the only unemployed apprentices were females and more males than females were employed in a non-dual company (see table 2). In terms of field of study, most of the apprentices that rejected the job offer from the dual company were in accounting and management, which was the field with more continuation of studies.

Table 2. Apprentices by employment outcomes and sex.

EMPLOYMENT OUTCOMES	FEMALE	MALE	TOTAL
Employed dual	6	5	11
Employed other	2	7	9
Employed dual & studying	3	4	7
Employed other & studying	0	2	2
Unemployed	3	0	3
Total	14	18	32

Due to the reduced sample size, survey data was analysed only through descriptive statistics, allowing the team to characterise the participants in terms of socioeconomic background, types of companies and studies, and labour market outcomes. The bulk of qualitative data was far richer and allowed the team to thematically code the information in relation to the three programme mechanisms outlined in the analytical framework. The next three sections present the qualitative findings of the study for each of the explanatory mechanisms.

Situated learning

Pedagogical literature has pointed out that, for some learners, *apprenticeships are both more motivating and easier to undertake than the less situated learning that characterises classroom-based provision* (Unwin & Wellington, 2013). The activation of this social mechanisms requires students participating in apprenticeships to be intrinsically motivated in the practical learning opportunities offered by the programme. We wanted to test to what extent this assumption holds on in the case of students taking part in the MMFD. Students were asked what the main reason for this decision was and who had been the key influencers during the decision-making process. The results show how the intrinsic motivation in the practical element of learning was decisive only in a minority of the cases, with the employment prospects being the main reason among the majority of the students. School teachers as providers of information and parents as providers of support were cited as the key influencers in the decision-making process.

When asked about their reasons to participate in the programme, only a minority of the students reported that their main motivation was the situated pedagogy of the programme.

Among those motivated by the pedagogy, some of them were explicit in their preference for practical versus strictly theoretical forms of learning, for example by arguing that learning by doing is more effective than learning through theory. Another reason that they gave was that practical learning was more motivating for them than theoretical forms of learning. In their responses, students associated theoretical learning to the vocational school and practical learning to the workplace. However, students differed in how they understood the level of continuity between school and workplace learning. For some of the students, particularly among boys in manufacturing, there was a clear demarcation between the methods of learning in the two spaces that made the workplace more effective for their learning:

“Well, you were going to learn more than at school because at school they are pure theoretical and here pure practical.” (male, industrial production)

In other cases, particularly among girls in services, there was certain level of continuity between the learning at school and the workplace, with the workplace just offering an opportunity to add another form of learning to their educational trajectory. Some students were very clear in the idea that they did not want to leave school, and they saw this opportunity as a reward for their good school performance. The continuity between classroom and work-based learning and the possibility to achieve higher levels of learning by combining both elements is well captured through the following quotation:

“I really wanted to excel (...) Best of all, I learned a lot of things that were given to us theoretically at school and I could see them more in practice” (female, accounting)

The majority of students decided to participate in the programme because they saw it as an opportunity to improve their employment prospects. The reason most mentioned during the interviews was the acquisition of labour experience, which they envisaged as the main barrier in the access to employment. The possibility of being employed in the same company of their training, was also mentioned as a motivator to take part in the programme:

“They had mentioned to us in the school that they were going to give us the opportunity to know the different types of areas of the companies and with which we could leave with the knowledge and also we could be hired from the same company.” (male, accounting)

Among those that had never worked before, an apprenticeship was an opportunity to do something new that they knew it was missing in their training. In the case of those that already had work experience, they were perfectly aware of the difficulty of accessing good jobs without a qualification but, at the same time, they were confident that they could perform in a work environment. Interestingly, some students perceived the decision of joining the programme as very risky in educational terms. Leaving the typical schooling route generated uncertainty among students, particularly in relation to the impossibility of reversing their decision if the workplace experience was not satisfactory:

“You run from a company and if you run from the dual system you cannot go back to school or you stay in the company and you finish, or you do not finish. That's why I was sometimes ... Imagine that and they blame me for something, a partner wants to

hit me and I'm going to defend myself and... but anyway, I took the risk.” (male, industrial maintenance)

Students did not make the decision to participate in the programme alone. Among the key influencers in their decision-making process they identified, firstly, school teachers and their parents, and secondly, friends and peers. The influence of teachers and parents was key to reassure them in their choice and to mitigate the risk perception described above. These two types of influencers played different roles in the process. Teachers first played an important role in the provision of information about the programme and in the assessment of the suitability of each candidate for the requirements of the programme. After that, students conferred with their parents and close inner circle to seek their support in the decision they were about to make. The quotation below shows the sequence and the different role of these two types of influencers:

“The career guidance teacher was the one who provided us with the information. After the teacher spoke with us, they [parents] were the ones who were there, it can be said that, supporting me” (female 15, accounting)

Finally, the information and advice from former apprentices in the programme was highly valued by students. Some of these graduates participated in information sessions organised by the school. In other cases, students had relatives or friends that had been enrolled in previous editions of the programme, who convinced them about its benefits.

Skill content

The second mechanism proposed by the literature suggests that *the skill content of apprenticeships will be more updated and relevant for the demands of employers because students will be exposed to the production methods and work requirements of actual workplaces* (Streeck, 1989). The activation of this social mechanism lays on two assumptions: on the one hand, companies will prioritise training aims over production aims in the daily activities of their apprentices and, on the other hand, vocational schools will integrate the workplace component of apprenticeships into a coherent learning programme. In order to test these two assumptions, we asked students about their self-perception of learning in different domains (theoretical knowledge, occupational skills, transversal skills) and their evaluation of the experience at school and the workplace. The results show that students perceived higher learning gains in occupational and transversal skills than in theoretical knowledge. This pattern seems to be associated with the difficulties of vocational schools to adapt their offer to the requirements of the dual model and to the different learning styles of students. While the workplace experience was highly satisfactory for most of them, some students reported exploitative practices by their employers and lack of adequate response and support from programme officers.

Most of the students reported a perception of high occupational skill learning at the workplace. In the interviews they referred in positive terms both to the breadth and the depth of this learning. In the workplace they learned about work processes that were relevant to their occupational domain and that they were not even aware of. They also mentioned that certain occupational skills had been learned at school at a much superficial level, while in the

workplace they were able to acquire a much in-depth mastery. The workplace offered them the opportunity to work with machinery and equipment that was not available at school, newly updated software, new materials and more effective procedures:

“We learned to run programs such as Joomla, Wordpress, servers, arm and disarm computers [...] so if they ask us to make a web page, they knew how to make a page in a way that I would not do it. In this matter the company have faster methods to do things because of the effectiveness that they need.” (female, informatics)

Not all the companies offered the same learning conditions. In companies with higher student satisfaction apprentices had the support of qualified mentors that guided them throughout the work and learning process, quite often supervised in small groups. Students valued the patience showed by mentors when they struggled with some of the tasks and the prevalence of training over production needs. Another aspect highly valued by apprentices for the acquisition of a well-rounded training was the rotation among different areas within the same company. This rotation allowed students not to get staked in their learning and acquire a better understanding of company processes as well as higher levels of responsibility. As shown in the quotation below, students were aware of the importance of rotation plans and acquiring a broad occupational skill set for their employment prospects:

“it was integral, we can apply it in other types of companies also. They were not very clear that maybe we were not going to stay with them, but it was going to be useful for other places” (Male, accounting)

There were other companies where students complained about the quality of the training, working conditions and personal experience. In some cases, the explanatory factor of this negative experience operated at company level, while in other cases was caused by the individual behaviour of one of the mentors. At company level, low employers' engagement with the training resulted in breach of contracts, extension of working hours and lack of compliance with the rotation plans. Some companies did not have a training culture and their staff did not know what to expect and how to deal with the apprentices, while others were working with very outdated equipment. In a few cases apprentices complained to programme officers and they were transferred to a more suitable company, but that was not the norm. At individual level, apprentices experienced how working with different mentors had very different effects on their learning experience. In the worst cases, the work relationship was experienced as exploitative by the apprentice:

“The most negative thing would be that one of my bosses wanted to exploit me, he wanted me to do all his work, he threw all the burdens on me. He wanted me to be like a full-time worker. He wanted to take my time for lunch. He threatened me with kicking me out of the dual system. He did not have the right to do it.” (female, accounting)

Students also had a perception of high learning of transversal skills and work attitudes. Most of them reported a much higher level of maturity as a result of the participation in the programme. This personal change reflected in the way they were able to take responsibilities towards other co-workers and the company, but also in their personal life, particularly among

those raising their own family. Students felt more self-confident and self-effective in their work endeavours, and some of them even expressed their willingness to create their own company. Communication skills and social skills were areas of skill gain repeatedly mentioned by students. These communication and social skills were important when dealing with customers, but also when having to work in teams:

“I learned a lot to work in a team, because before I went to the dual system, I was a prominent student, but let's say, in the school environment it only mattered, it did not matter ... Maybe they put me to work in a group, but like I knew that some people were not going to do their part, I focused a lot on myself. When I got to the system, I learned to work a lot as a team, because I needed a lot from other people to learn what I know now.” (male, industrial maintenance)

Students reported much lower perception of theoretical learning than in the other two domains. There was wide agreement among participants that those attending school fulltime were better prepared in terms of theoretical knowledge than those participating in the programme. Some students felt that their learning of school subjects was insufficient and that they would need additional time at school to catch up with the theoretical learning acquired by the other students. They perceived that their deficits in core school subjects would negatively affect their chances of accessing higher education in the future. They also mentioned that their poor command of theoretical aspects would have negative effects in their reflexive capacity as future professionals:

“Theory should also be provided to a certain extent within the dual system. There are things that you can do because you know how they are done, but you're never understanding [...] Just, you stay with that idea and so, I do it. That's the way I do it, so I do it. So, it's important that you also see a bit of theory, because people do it automatically if they do not learn. They would learn it better.” (female, accounting)

Students attributed these deficits in theoretical knowledge to the online delivery of the school subjects, but also to the lack of engagement from some schools. Students complained about the quality of the online learning resources provided by the programme and about the lack of study time available after work. Some of them explained that they would have preferred more face-to-face interaction with school teachers and relying less on self-directed forms of learning. The lack of coordination between schools and companies made difficult for them to accommodate their schedules to the ones set by the school. Some of the students also explained that they felt abandoned by the school, that school teachers were not responsive to requests for support from students, and that they did not receive timely feedback from the teachers.

Institutional contact

The third mechanism identified by the literature suggests that *apprenticeships offer an institutional link with the professional world that allows young people to acquire superior information and contacts in the labour market* (Ryan, 2001). Under this mechanism, students would signal their abilities to employers during their apprenticeship and they will be offered a job because external recruitment would be more costly for the dual company. There are at

least two assumptions underlying this hypothesis that should be problematised. Firstly, that the dual company is always recruiting and has a job to offer to the apprentice. Secondly, that the job at the dual company is going to be attractive to the apprentice. In order to test these assumptions, we asked apprentices about their employment status, the job offers they had received and the reasons for accepting/rejecting those offers. As indicated in the methodology section, most of the apprentices in the sample were employed one year after completing their studies, and the majority of them were employed in the dual company. Most of them received job offers from the dual company but one third of them rejected the offer. The area of studies with higher levels of rejection was accounting, which also has the higher participation of female students.

There were different reasons for students to accept the job offer from the dual company. The first one was that accepting the offer was easier for the student than looking for something else. This type of response was characteristic of students with low professional expectations. Some students could not imagine a better outcome from the programme than being offered a job in the company of their apprenticeship. Other students were more pragmatic and accepted the offer while still searching for better jobs, while deciding what to study, or just as a default option because they were not admitted in the higher education institution of their preference.

The second reason for apprentices to accept the job was that the dual company was offering attractive working conditions and a position that was directly relevant to their studies. The relevance of the position was particularly important for studies like accounting and management that are less sector specific than the industrial ones, and where the matching between the job and the interests of the candidate is more challenging. Apprentices that accepted the job because of the good salary and/or the benefits package were convinced that their training would allow them to find jobs in other companies with ease. In some cases, these offers arrived in the form of a promotion to positions with higher level of responsibility.

Finally, the third reason for apprentices to accept the job was that the dual company offered them the possibility of combining work with the continuation of their studies in higher education. Usually, companies that valued the interest of the apprentice in continuing their studies were also the ones offering better qualified jobs and attractive working conditions. In some cases, the company supported financially the continuation of the studies of the apprentice by paying part of their university fees. Dual companies used this financial support as a strategy to retain the most apt candidates and those that had acquired a professional certification. This logic was very explicit in the recruitment strategies of some companies:

“From the beginning I had the idea of continuing my studies and they told me: *if you stay, at the university that you decide to go, we will support you.*” (female, accounting)

Not all the apprentices received a job offer from the dual company or were able to accept it. Some dual companies informed the students from the beginning that they were not planning to open new positions in the near future. Other companies were receiving so many apprentices that could only employ some of them. There were also cases where the time gap between the acquisition of the vocational qualification and the job opening did not allow the

apprentice to be employed in the same company. In other cases, personal circumstances or matters of convenience forced the apprentices to opt for other companies (e.g. work distance).

Particularly striking was the case of apprentices in accounting and management, where most of the rejections occurred. The difficulty of matching the interest of students with adequate apprenticeships had negative consequences in their work experience and employment prospects. These were the studies with higher presence of female students, which suffered the consequences in terms of unemployment after the programme. The low relevance of the job and the poor working conditions made some of the apprentices to reject the job offer. Some of them, after a period of unemployment, managed to find a job in a different company through their vocational school. One apprentice in accounting and management explains in the quotation below how he managed to overcome the bad work experience in the dual company and find a suitable job. In his case, having acquired a certification in business coaching was crucial to receive job offers from other companies:

“It did not meet my expectations; it was pure telemarketing. Thank God other companies made me offers. In the job I am now, I feel good, I feel comfortable and it is not necessary to make a change.” (male, accounting)

There were three cases of female students that, scarred by the poor working conditions they have experienced during the apprenticeship, decided to stop searching for a job and to continue their studies. After one year of completing their apprenticeships, these three apprentices had not been able to secure their admission in higher education and were still unemployed.

Discussion

The evidence shows that the majority of students in the programme did not choose to participate because of their preference for situated forms of learning but because of their instrumental interest in a quick insertion into employment. Given the diversity of learning styles among students, and with the aim of assuring a good matching between students interests and the expectations from the programme, the selection of candidates should prioritise those with an intrinsic motivation in practical learning over other considerations. Also, the high perception of risk associated to the dual model among students suggests the possibility of suboptimal levels of demand to participate. Given the crucial role attributed by students to key influencers, it seems reasonable to reinforce the deployment of information and orientation sessions led by former apprentices and to encourage the attendance not only of potential student candidates but also of their parents.

The evidence also shows that the self-perception of occupational and transversal skills is highly uneven depending on the context of workplace learning. Companies differ in their level of involvement with the training, the quality of the equipment and technology, and in the rigour in the implementation of the rotation plans. As not every company can be a dual company, the external monitoring and evaluation of the workplaces should be much stricter and exclude those companies that do not offer adequate learning environments.

Furthermore, even within the same company, mentors vary very much in the support offered, pointing out to the need of investing in the training and qualification of company mentors.

Schools in the MMFD are struggling to adapt to the requirements of the programme and the need to accommodate individualised learning plans for the apprentices. This may be a major impediment for the programme given the strong teacher-centred pedagogical culture in countries like Mexico. In addition, the reliance of the programme on blended forms of provision of the school subjects is not well received by those students that would benefit from a more regular face-to-face interaction with their school teachers. Students have pointed out that an inadequate integration of theoretical knowledge in the curriculum will affect their capacity to continue their studies in the future and their development as reflective professionals.

The evidence on the reasons of students to accept or reject job offers shows the inadequacy of judging the success of the programme through the labour market insertion of its graduates. Students accept the job offers from the dual company for different reasons, and not always for the right ones. Many students, particularly those with low educational and professional expectations, often see the job offer from the dual company as the default option because they do not have or do not aspire to better alternatives. There are other, however, that really exercise their bargaining power and only accept if attractive working conditions are offered. Beyond the educational qualification, the systematic integration of professional certifications in the portfolio of the programme has proven necessary to increase the labour market bargaining power of the apprentices.

Contrary to the explicit expectations of the programme, that mainly focus on the labour market insertion of the apprentices, the continuation of studies is a desired outcome for many of them. Some companies are aware of this and contribute financially to the continuation of studies of their apprentices as a strategy to retain them. The incorporation of these outcomes among the objectives of the programme would better reflect the aspirations and interests of its beneficiaries. Furthermore, at a more structural level, the difficulties of apprentices to secure admission into a higher education institution should force political authorities in Mexico to pay closer attention to social inequalities in the access to higher education for those students transitioning from vocational routes.

Conclusions

The paper has analysed how the dual model of apprenticeships is re-contextualised in the case of Mexico. It has focused on the characteristics, motivations and logics of action of apprentices that took part in the MMFD and on the different contextual conditions that shaped their decision-making process. By doing so, it has been able to test to what extent and under what conditions, the expected mechanisms of the dual apprenticeship programme in Mexico actually take place for its beneficiaries. While the comparative literature has already signalled the importance of the workplace and the culture of work for the transfer of the dual model (Langthaler, 2015; Maurer & Gonon, 2014), much less has been problematized the role of the school context and the potential contradictions between the expectations of the policy and the preferences of some beneficiaries for continuing their studies after the apprenticeship. Our findings show that in countries with a strong teacher-centred

pedagogical culture like Mexico, vocational schools will struggle to offer individualised learning plans for the apprentices, which will have negative effects on their learning. They also show that policies that do not incorporate the voice of their beneficiaries in the definition of their objectives will necessary fail to support the aspirations and life plans of young people.

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