

VOL., 26 Nº 3 (Noviembre, 2022)

ISSN 1138-414X, ISSNe 1989-6395

DOI:10.30827/profesorado.v26i3.23542

Fecha de recepción: 21/12/2021

Fecha de aceptación: 13/09/2022

POST-DUAL TRAINING TRANSITIONS IN MEXICO: APPRENTICES' STRATEGIES DURING THE COVID-19 LOCKDOWN

Transiciones después de la formación dual en México: estrategias de los aprendices en tiempos de la COVID-19

*Jimena Hernández-Fernández¹, Clara Fontdevila²
y Erick Marsán³*

¹Universidad Iberoamericana Ciudad de México

²University of Glasgow ³Independent consultant

E-mail: jimena.hernandez@ibero.mx;

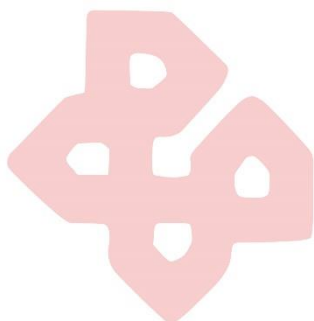
clara.fontdevilupig@glasgow.ac.uk;

ems.2793@gmail.com

ORCID ID: <https://orcid.org/0000-0002-7301-2649>

<https://orcid.org/0000-0003-0589-558X>

<https://orcid.org/0000-0002-4371-0411>



Abstract:

The Mexican Model of Dual Training (MMDT) is a modality of technical and vocational education that combines work-based and school-based training at upper secondary school, with the aim to improve youth skills development and employability opportunities. The article explores how COVID-19, and specifically the lockdown period undergone by Mexico during 2020, affected the transitions of apprentices that completed the MMDT that year. In particular, the article explores whether and to what extent apprentices' aspirations and expectations were readjusted during their transition in times of COVID-19 lockdown. Also, we examine how the MMDT's capacity to provide equal opportunities for all apprentices changed in a context of full disruption of the economic and social life. To explore these themes, we rely on a longitudinal research design consisting of two waves of in-depth interviews with a sample of 52 apprentices in two states of Mexico (Coahuila and State of Mexico). The first wave of interviews took



place in 2019 and the second wave in 2020, after apprentices completed the MMDT. Our results suggest it is possible to distinguish at least three distinct transition paths. We find thus a first group of apprentices who readjusted their aspirations by settling for a second-best option to access higher education and/or the labour market; a second group of apprentices with certain economic stability who could afford to stick to their original expectations; and a third group that relied on a delay strategy, by waiting for (education or labour) opportunities to improve and putting their plans on hold. We conclude that apprentices' socioeconomic status operated as a key mediating factor that modulated the opportunities and strategies available to these youngsters in their attempt to adapt and adjust their plans according to the circumstances. These findings shed light on the negative impact of the COVID-19 crisis on the equalizing potential of the MMDT.

Key Words: apprentices; COVID-19; educational aspirations; Mexico; occupational aspirations; transition from school to work.

Resumen:

El Modelo Mexicano de Formación Dual (MMFD) es una modalidad de educación técnica y vocacional que combina capacitación en el trabajo y en la escuela de nivel medio superior con el objetivo de mejorar el desarrollo de habilidades y oportunidades de empleabilidad en la juventud. El artículo explora cómo el COVID-19, y específicamente el período de cierre experimentado por México durante 2020, afectaron a las transiciones de los aprendices que completaron el MMDT ese año. En particular, el artículo explora si las aspiraciones y expectativas de los aprendices se reajustaron durante su transición en tiempos de bloqueo del COVID-19 y en qué medida. Asimismo, examinamos cómo cambió la capacidad del MMDT para brindar una mayor igualdad de oportunidades a todos los aprendices en un contexto de plena alteración de la vida económica y social. Para explorar estas cuestiones, nos basamos en un diseño de investigación longitudinal consistente en dos oleadas de entrevistas a profundidad con una muestra de 52 aprendices en dos estados de México (Coahuila y Estado de México). La primera ola de entrevistas tuvo lugar en 2019 y la segunda ola en 2020 después de que los aprendices completaron el MMFD. Nuestros resultados sugieren que es posible distinguir al menos tres trayectorias de transición distintas. Así, encontramos un primer grupo de aprendices que reajustaron sus aspiraciones conformándose con un 'plan B' para acceder a la educación superior y/o al mercado laboral; un segundo grupo de aprendices con cierta estabilidad económica que pudieron permitirse mantener sus expectativas originales; y un tercer grupo que se apoyó en una estrategia de retraso, esperando a que las oportunidades (educativas o laborales) mejoraran y dejando sus planes en suspenso. Concluimos que el perfil socioeconómico de las y los aprendices operó como variable mediadora clave, modulando las oportunidades y estrategias disponibles en su intento de adaptarse y ajustarse a las circunstancias. Estos resultados arrojan luz sobre el impacto negativo de la crisis del COVID-19 en el potencial igualador del MMDT.

Palabras clave: aprendices; aspiraciones profesionales; aspiraciones educativas; COVID-19; México; transición de la escuela al trabajo.

1. Introduction

The school/training to work transition (STWT) represents a challenging process for young people in many countries (Pilz, 2017). In Mexico, efforts have been made to improve the STWT for young people - given that 59% of the population between the age of 18 to 29 with completed upper secondary remain unemployed (Thalheim, 2018), and 40% are employed in precarious jobs (Román Sánchez, 2013). Amongst the efforts to improve the STWT, the adoption of the so-called Mexican Model of Dual Training (MMDT) features

prominently. The MMDT is a modality of technical and vocational education and training (TVET) that combines work-based and school-based training. The MMDT is an adaptation of the German dual apprenticeships (DA) model and operates as a program to improve the STWT of young people in Mexico while developing apprentices' employability skills and enhancing employment opportunities. So far, the MMDT has shown some positive results in apprentices labour market insertion (Thalheim, 2018; Zamora-Torres & Thalheim, 2020). In 2018 for example, 52% of MMDT's graduates were employed by the end of the program, which represents a 15% improvement in comparison with the employment rate of graduates from traditional technical upper secondary school (37%) (Brull, 2022). However, in 2020 the coronavirus outbreak (COVID-19) gave way to a nationwide lockdown where non-essential workspaces, as well as education and leisure spaces, were closed for a prolonged period. Schools and universities were closed in March 2020. The time of their reopening varied according to the local health situation. In the case of compulsory education, most schools reopened during the second semester of 2021, while higher education institution reopened mostly during the first trimester 2022. Therefore, it is expected that the COVID-19 lockdown in Mexico did not only have immediate impacts on school enrolment and attainment levels (as aptly documented by Rodriguez-Abitia, 2021) but that, in the mid-term, it will also alter the ultimate impact of programs such as the MMDT, and especially their equalizing potential.

This article explores how COVID-19 in Mexico affected the transitions of apprentices that completed the MMDT in 2020 by enquiring how and to what extent apprentices' aspirations and expectations were readjusted during their transition in times of a nationwide lockdown. In so doing, we inquire into the MMDT's capacity to provide equal STWT opportunities during the COVID-19 crisis. We focus not only on STWT but on a broader spectrum of transitions. As discussed below, we conceptualize transitions as the processes of change between apprentices' fulltime DA participation in the MMDT to any activity performed after graduation. In this sense this article adopts a sociological approach to the notion of transition, acknowledging that transitions are prolonged and complex (Furlong, 2009); formed in the dynamic interplay between multiple events that take place simultaneously (Gale & Parker, 2014; Tett, Cree, & Christie, 2017); affected by the economic and social contexts as well as the local conditions, and influenced by structural changes (Côté, 2014a; Côté, 2014b) such as COVID-19.

Our study is relevant as many countries have imported the German DA model because of its success on smoothing STWT in Austria, Germany, Switzerland (Haasler, 2020). There is a considerable amount of literature that has explored how the DA model has been adapted and implemented in different contexts (see Pilz and Wiemann, 2021, Valiente and Scandurra, 2017, Pilz, 2017); however, to our knowledge an important gap remains on how DA implementations in these other contexts support apprentices' personal life projects, transitions, and aspirations (Kovacheva et al. 2020). Our study not only contributes to the research on DA and STWT by bringing apprentices voice to the fore of the analysis but also because it highlights the importance of apprentices' socioeconomic status as a mediator

in such transitions. In other words, our exploration is directly informed from the experiences, concerns, and perspectives of apprentices themselves.

This study is based on the results of a longitudinal research design consisting of two waves of in-depth interviews with a sample of 52 apprentices in two states of Mexico (Coahuila and State of Mexico). In the first wave of interviews, we enquired into the apprentices' reasons to join the MMDT, as well as into their main expectations after their participation in the program. The second wave of interviews was designed to follow apprentices after completing the MMDT and explore whether their aspirations and expectations had been fulfilled, or how they had been readjusted. The first wave of interviews took place in 2019 when apprentices were studying their last DA year of MMDT; whereas the second wave took place in the last trimester of 2020, a few months after they had concluded the program. In this way, we followed a cohort of MMDT apprentices that unexpectedly faced a situation where both their schools and companies closed because of the COVID-19. This cohort was hence forced to navigate the process of transition in times of extreme uncertainty and change.

This article is structured as follows: First, we present the theoretical framework guiding the analysis. Secondly, we describe briefly the MMDT and elaborate on how COVID-19 affected the education and labour sectors in Mexico. The third section presents the results of our study by showing the different pathways that apprentices navigated after completing their MMDT in times of COVID-19 lockdown. In the fourth section we synthesize our results and outline some concluding remarks.

2. Delving into the transitions and aspirations of young people

Youth studies literature have repeatedly found that transitions mark critical points in the lives of young people. Initially, youth transitions were defined as the period running from the completion of full time education to the entry into the labour market with a full-time job (Keskiner, 2019). However, more recent studies have presented a new take on the concept and have moved away from an understanding of transitions as one-off events, towards the analysis of the dynamic interplay between multiple transitions that take place simultaneously in the life of young people (Gale & Parker, 2014; Tett et al., 2017).

There is thus an emerging consensus on the fact that transitions are more complex than the change between education to further education or work, and that there is no clear-cut (boundary or temporal) between study and work (Du Bois-Reymond, 2009). For example, often times, young people begin working while still at school; they may go back to school after having worked for some time; they may work and study at the same time, etcetera (Du Bois-Reymond, 2009).

In fact, it is important to bear in mind that there is a general rise in the share of students who are already employed before completing the education level considered as starting point; which has contributed to blur the notion of “transition point” (Heinz, 2009). As a

result, the study of young people's transitions has to consider the overlap between education and occupational career and question when exactly the transition to the labour market begins and ends for young people (Du Bois-Reymond, 2009). This aspect is particularly important when studying the transition of young people who have joined TVET programs and are combining education and training at school and workspaces –precisely as in the case of MMDT apprentices. In this sense, our transition point corresponds to the participation in the MMDT, where apprentices are fulltime students at a technical upper secondary school and as part of that role, they switch to a school modality where they become fulltime apprentices at a company while they are still required to attend certain courses, submit assignments, and to undergo an evaluation process.

There is still a vibrant debate on the factors that determine transitions. Most authors refer to the interplay between structure and agency during transitions - indeed, and as noted by Heinz (2009), since the 90s the structure vs agency debate has only been gaining prominence in youth transitions literature. Some scholars give greater explanatory power to the agency factor. The notion of agency was indeed introduced to compensate for a potential over-emphasis on structural factors determining transitions - to bring to the fore the role for decision-making and strategies mobilized by young people to navigate a changing environment. One of the manifestations of such efforts to recognize agency derived in the so-called individualization thesis (see also Rudd & Evans, 1998). Thus, theories forwarded by Beck (1992) and Giddens (1991) conceptualized youth transition as highly autonomous and reflective processes. For example, Beck argued that insecure labour market conditions produce greater individualization in life practices and diminishes the significance of, and attachment to, collective social formations, such as social class, gender, marriage and family (Keskiner, 2019). Furthermore, Giddens has argued that individuals are increasingly forced to be conscious of who they are and what they want, ergo young people become more reflexive in the process of building “themselves” and choosing a path (Keskiner, 2019). Tanner and Arnett (2016), suggest that the process occurs in a phase called “emerging adulthood” in which teenagers progress into adulthood by acknowledging that young people have agency regardless of their social class, gender or ethnicity (Tanner & Arnett, 2016).

Conversely, other authors emphasize the determining impact of structural factors. This is the case of those scholars that emphasize how social structures interact with institutional structures to present young people with both opportunities and obstacles during their transitions. Accordingly, youth transitions are seen as a result of structural transformations, for example the booming service economy and growing neoliberal practices in both education and the labour market (Furlong, 2009). The structures resulting from these transformation have not necessarily translated into an increase of young people's agency but interact with social class and local conditions (Côté, 2014a; Côté, 2014b, Heinz, 2009) to shape the type of transitions young people can afford to perform.

In terms of structural changes, some authors have argued that technological transformations and economic globalization (Côté, 2014a) universally affect young people's life and ultimately influence their transitions, placing the emphasis on macro-level determinants and their effects on educational and work opportunities. Others emphasize the effects on youth transitions of the differences across different social class, ethnicity or gender, which shape their chances (Furlong, 2016; Ball, Maguire & Macrae, 2000). This line of inquiry has generally been more attentive to the role played by individual aspirations, individual planning, choice, and reflexivity, while recognizing these are embedded and modulated by the social context. An example of this line of reasoning applied with a focus in TVET is the work of Aldinucci and colleagues, who have examined how secondary TVET students in Chile construct their aspirations. Their study suggests that students perform a reflexive response to significantly high levels of social inequality, the precarity of working conditions in a highly liberalized labour market, and the high level of marketization that characterizes the Chilean education system (Aldinucci, Valiente, Hurrell, & Zancajo, 2021). These authors thus highlight the significance of aspirations and their relation to the context as crucial determinants of youth transitions.

Despite the internal heterogeneity of this strand of the literature, those authors concerned with the structural determinants of transitions coincide in signalling the multiple forms of disadvantage experienced by young people from a vulnerable background or less privileged social positions. This point was made early on by Furlong and colleagues (2003), who drew attention to the patterns of vulnerability and exclusion that shape processes of post-school transitions. As recently synthesized by Tarabini and Ingram (2018), inequalities permeating education and social systems would thus necessarily translate into highly unequal life trajectories, including educational and labour routes. As argued by the authors,

'Possibilities' are not a rational calculation but rather a tacit understanding of what can be expected and thinkable as an outcome. Working-class young people don't rationally calculate their chances of success in education and make according decisions; instead the possibilities are very much generated within the parameters of what is 'felt' to be possible (p. 212).

Given widespread agreement on the fact that structural context affects the aspirations and transitions of young people, we posit that COVID-19 operates as structural transformation that has globally affected youth transitions. COVID-19 effects may however vary according to the national and local context, as well as socioeconomic status (SES), ethnicity, and gender. So far, very few studies have focused on studying the effects of COVID-19 on transitions. An exception is the work of Winn and colleagues, who have explored the challenges faced by graduating medical students transitioning to residency (Winn et al., 2021). Their study shows that graduating medical students reported that most activities surrounding their transition from medical school to internship were altered by the COVID-19 pandemic. Amongst the alterations observed by the authors, disruptions in the transition into clinical activities and timelines of graduation feature prominently.

The study shows that medical graduates perceived COVID-19 pandemic had an unfavourable impact on most aspects of their medical school training, and that the majority were not fully satisfied with their transition into clinics and hospital activities (Winn et al., 2021).

With our study, we aim at contributing to the study of TVET youth transitions by drawing attention into how COVID-19 as a structural factor has affected the paths apprentices can take. We depart from the assumption that COVID-19 has disturbed labour market conditions while intensifying pre-existing educational and social inequalities. In this sense COVID-19 operates as a key mediating factor shaping the ways in which they cope with complex transitions - but its ultimate effects are modulated by a range of contextual factors, with certain groups being more directly impacted by COVID-19 than other.

3. The Mexican Model of Dual Training and COVID-19

The MMDT is an educational option at upper secondary school in Mexico¹ that combines school-based theoretical training (taking place in technical schools) with workplace-based practical training and the development of skills and abilities (taking place at the so-called *dual companies*) (Ministry of Upper Secondary School, 2013). In place since 2009 in the form of a pilot project, dual training in Mexico was adapted from the experiences in Germany, Austria, and Switzerland to facilitate labour market insertion and strengthen the development of job skills among young TVET upper secondary students who become apprentices when joining the MMDT. The MMDT aims at meeting the needs of the labour market while giving participants the experience they require, along with a skillset expected to be highly useful in their working life (Zamora-Torres & Thalheim, 2020). The MMDT was proposed as an alternative solution to reduce youth unemployment and to improve the precariousness of young labour insertion in Mexico (Thalheim, 2018). In that sense the MMDT is designed to bring students closer to the productive sector and to allow access to specialized training in the participating dual companies (Zamora-Torres and Thalheim, 2020). MMDT integrates the development of both generic and specialized skills for work in young apprentices. As an equalizing public policy, MMDT's goal is to improve young people's employability and thus operate as a channel of socioeconomic mobility.

Under the MMDT, the curriculum is developed jointly by the technical upper secondary school and the dual company: the theoretical training is provided at school (20 per cent of the curriculum) and the practical training and activity development (which represent 80% of the curriculum) take place at the dual company (Zamora-Torres & Thalheim, 2020). As a mixt modality of technical upper secondary education, MMDT provides the students with the credentials of a dual baccalaureate, that is valid to enter college programs in

¹ Secondary education in Mexico is divided in two mandatory stages - lower secondary education (grades 7 -9) and Upper secondary education (grades 10-12). Upper secondary students can choose between two main tracks - a university preparatory track known as general *baccalaureate*, and a professional track known as *technical baccalaureate* (SEMS, 2017)

Mexican universities. Also, MMDT guidelines grant labour competency credentials (SEMS, 2022). After the completion of the program, students can thus choose between pursuing university studies, entering the labour market, or a combination of these options (e.g., becoming part-time workers while pursuing further education etc).

Under normal circumstances, MMDT apprentices interact and learn both at the technical upper secondary school and the dual companies; however, COVID-19 changed dramatically the implementation of the MMDT. Upper secondary school facilities were closed, educational models were adapted through internet, television, and radio (OECD, 2020), and companies that were considered not essential in the peak of the crisis were instructed to shut down. School closures forced apprentices to shift to a remote learning modality that resulted in an overall reorganization on the curriculum, teaching activities and assessment practices. In addition, apprentices could hardly acquire any work experience as the dual companies closed. Despite the graduation of apprentices was not affected as schools and dual companies agreed to stick to the original graduation calendar, apprentices could only participate in work-based training for a very limited time, and they could not benefit from the networking opportunities typically offered by dual companies (Hernández-Fernández et al., 2021).

Emerging literature has pointed out that the effects of school closures will only magnify social and economic inequalities among students and that the effects will vary according to the educational level, geographic location and even the type of school ownership (public or private) (Guzmán Gomez, 2020). In that context, the MMDT is expected to experience huge challenges to achieve the goal of improving the skills and employability opportunities of all apprentices. It is thus important to understand for whom did the MMDT program work under the COVID-19 lockdown circumstances - that is, to identify which apprentices were (and were not) in the position to make the most of the program despite the lockdown.

4. Methodological approach

4.1. Data sources

Our study relies on a qualitative analysis of a large corpus of in-depth interviews with apprentices that participated in the MMDT. The conduction of interviews followed a longitudinal design - that is, apprentices were interviewed in two different moments or waves. In Wave 1, conducted between the last quarter of 2019 and early 2020, we interviewed apprentices when they were doing their MMDT. Wave 2 followed apprentices few months after the first wave of interviews (when they were expected to have finished the MMDT and their upper secondary school studies) and were conducted during Autumn 2020. Wave 1 of interviews focused on apprentices' access to the MMDT as well as the learning experienced at schools and the companies, while Wave 2 focused more on exploring apprentices STWT experiences when having completed the MMDT. Both waves

of interviews were transcribed verbatim for further analysis. Importantly, the collection of qualitative data was complemented with a quantitative survey, administered to 307 dual apprentices from the two states. However, for the purposes of this specific investigation, we have relied primarily on interview data.

Interviewees were drawn from two Mexican states –Coahuila and the State of Mexico. The rationale for this choice lies in the fact that, combined, these states account for a 60 per cent out of the MMDT participants. Also importantly, the two states are in two different phases in terms of program - while the State of Mexico pioneered the adoption of the program in 2009, Coahuila started its implementation in 2015. Also, the two states differ greatly in their economic structure - while Coahuila is primarily oriented to the manufacturing and industrial sector, State of Mexico's economy is mainly oriented to the services sector².

For Wave 1, we interviewed a total of 59 apprentices: 30 in Coahuila and 29 in State of Mexico. For Wave 2 we followed the apprentices that participated in Wave 1 but the sample was reduced slightly to 25 apprentices in Coahuila and to 27 apprentices in State of Mexico. The reduction of the sample is consequence of the impossibility to regain contact with some apprentices - in any case, the attrition rate (11,9%) appears to be in line with most longitudinal qualitative studies. Hence, the sample used for this article encompasses 104 interviews, corresponding to the 52 apprentices that participated in the two waves of data collection. The distribution of the participants according to region, gender and field of studies is summarized in Table 1 below.

Table 1
Distribution of interviewees according to regions, gender, and field of studies

	Manufacturing		Services		Total
	Female	Male	Female	Male	
Coahuila	9	12	2	3	26
Estado de México	3	7	10	6	26
Total	12	19	12	9	52

Source: Authors' elaboration.

As shown by the table, in Coahuila our sample comprises 11 female apprentices and 14 male apprentices who come from the two technical-education campuses with the highest number of DA apprentices in the State of Mexico. The academic offer of both campuses corresponds to the region's productive specialization centred on industrial careers such as machines and tools, mechatronics, industrial electromechanical, and maintenance of electrical systems, while a small number of apprentices study accounting. In the State of

² See Hernández-Fernández et al., 2021 for a more detailed discussion of the sampling process and the elaboration of the interview protocols.

Mexico, our sample comprises 13 female apprentices and 14 male apprentices who were enrolled in three technical-education campuses –two located in the metropolitan area of Mexico City, and one in the State's capital city. The three campuses had a considerable participation of apprentices in the MMDT although they come from a variety of field of studies. While one campus focuses on the services sector (namely gastronomy, hospitality, and accounting courses), the second campus focuses on industrial careers such as electromechanics, electronic systems maintenance and industrial productivity. Lastly, the third campus combined both services and industrial field of studies, including machines and tools, mechatronics, accounting, and informatics.

Finally, and while the selection of interviewees did not consider criteria relative to the social background of the participants, data from the above-mentioned surveys suggests that dual apprentices' population is not necessarily a homogenous group in terms of SES. Thus, while the bulk of the survey respondents fell below the median household income in Mexico (11,100 Mexican pesos; c. 547 USD), they formed a rather variegated group - with 21% of participants whose household income ranges from 2,000 to 6,000 pesos; 35,2% whose household income ranges from 6,001 to 10,000 pesos; 26,2% whose household income between ranges 10,001 to 15,000 pesos; and about 15% with a household income superior to 15,001 pesos (Hernández-Fernández, et.al., 2021).

4.2 Data analysis

For the qualitative data analysis, the research team created a coding system based on the research objectives of the project. The coding system focused on the following dimensions: access to the MMDT, transitions into the labour market and further study, and changes in aspirations, expectations, and life plans. Additionally, we included a transversal code to be used any time that apprentices mention COVID-19, pandemic or lockdown. Wave 1 of interviews focused more on the dimensions of access and initial aspirations and expectations, while Wave 2 focused on transitions. Thus, for the analysis presented in this article, we relied mainly on Wave 1 interviews to discern the reasons apprentices to join the MMDT; and we focused on Wave 2 to understand transition to further education and training, labour market as well as the change in life plans. Table 2 summarises the codes used in the analysis presented in this article.

Table 2
List of Codes used in the analysis.

Dimension	Themes	Description
Access	Reasons to participate	Aspirations, expectations, and life project at the start of the program
Transition	Further study and training	Current study/training situation
		Continuity between DA and further education area of studies
		Reasons for further study
		Access to further study

		Current work situation
	Labour market insertion	Continuity between DA field of studies and work occupation Reasons for work Student reception of dual company job offer negotiation, reasons and process of job hunting
	Changes in aspirations, expectations, life plans	Changes in professional aspirations or expectations Changes in educational aspirations or expectations Changes in life plans
Emerging code	COVID-19	Student perception of COVID19 impact on DA

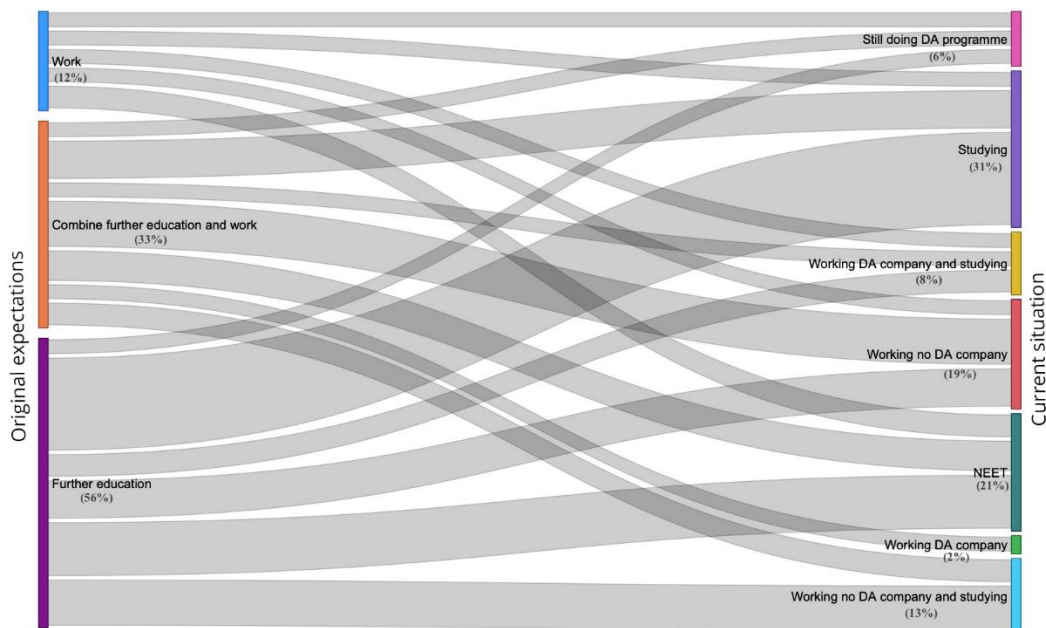
Source: Authors' elaboration.

The analysis was performed based on the full transcriptions of interviews conducted in waves 1 and 2 for the 52 apprentices and the coding system presented in Table 2. The qualitative analysis was executed with support of the qualitative analysis program Atlas.Ti (version 9). We followed the enquiry strategy based on dimension-specific analysis. Thus, for each dimension of analysis, at least two different investigator read together the different snippets relative to each code in order to discern patterns and regularities specific to each dimension (Linneberg & Korsgaard, 2019). Additionally, we prepared a spread sheet to summarise the responses of each apprentice in Wave 1 and Wave 2 to concentrate and further make sense of their transition route. The synthesis of the interviews in the spreadsheet was validated by multiple coders to ensure findings and conclusions were valid (Lub, 2015).

5. Apprentices' transition paths after completing the MMDT during COVID-19 lockdown

In this section we present the observed transition paths experienced by apprentices after completing their MMDT in times of COVID-19 lockdown. In so doing, we pay attention to apprentices' initial expectations when joining the MMDT program (Wave 1 of interviews) and follow their transition through their responses about their situation at the moment of Wave 2 (coded as current situation). The following figure shows the changes between the expectations when apprentices joined MMDT of what they originally expected to be doing at the end of Dual (on the left-Wave 1) and what they actually find themselves doing once they have completed their training (on the right-Wave 2).

Figure 1. Original expectations and current situation of MMDT students.



Source: Own elaboration.

With regards to initial expectations when joining the MMDT, our results from Wave 1 show that most apprentices (56 per cent of interviewees) aspired to continue studying and entering to higher education (HE) when they joined the MMDT. We also observe a second group of apprentices that were eager to combine further education and work when completing their MMDT. This group comprise the 33 per cent of the interviewees. So, nearly 90 per cent of the interviewees aspired to some form of academic continuity after their participation in the dual training program. This large and necessarily heterogeneous group is formed mainly by apprentices who had the aspiration of getting into HE before joining the MMDT. However, it also includes some young people whose aspirations owe much to their work experience at the DA company. These apprentices, during their time at the company, noticed that staff with HE tends to have better positions or more responsibility. Remarkably, most apprentices that expected to get into HE after completing the program aspired to do so in a *public* HE institution.

Complementarily, we also identify a smaller share of apprentices who wanted to concentrate on work when completing their program. This last group represent the 12 per cent of the interviewees in Wave 1. It is relevant to mention that many of these apprentices, as most of those willing to combine work and education, had the aspiration to get a job at the DA company. In fact, many apprentices suggested that they believed it was likely that they would get a job offer after completing the MMDT. In this sense, continuity within the dual company was not only an aspiration but an expectation at the moment of the first interview.

Our general results from Wave 2 show that the largest group of apprentices find themselves studying at university and not combining this training with any form of work

(31 per cent of interviewees). While most of these youngsters made it into a public institution, a few of them managed to have financial support from their families to afford a private, low-cost HE institution (which generally exhibit a rather low reputation). Importantly, and as shown by the above figure, this group was mainly formed by young people that, at the moment of the first interview, had expressed their intention to focus on their studies after graduating from the dual training. However, the group also included some apprentices who had expressed an interest in joining the labour market - and for which the focus on HE was thus a second best.

A second group of interviewees combined HE and work at the moment of the second interview. Specifically, 13 per cent of interviewees were studying and working in a company other than the DA company; and 8 per cent studied while working in the DA company. It is interesting to note that, in the two cases, a significant proportion of the interviewees were originally interested in focusing exclusively on their education after completing the DA. Given this mismatch, the reasons that led them to join a company, or remain in the DA company, merit further analysis.

Another relevant share of interviewees was only working at the moment of the second interview (21 per cent). Most of them were doing so in a company other than the DA company –the proportion of young people employed at the DA company (and not pursuing HE) amounted to a marginal 2 per cent. Here, it is relevant to note that an important proportion of those only working had expressed their intention to continue studying (exclusively or in combination with work) in the context of the first interview. Once again, the motivations that led these youngsters to abandon their HE aspirations, and the possible role played by COVID-19 in such readjustment, is a pattern that needs to be examined.

The NEET group also accounted for a 21 per cent of the interviewees and was quite a heterogeneous group in terms of original aspirations –it included young people that, in the context of the first interview, had expressed an interest in studying, but also in combining HE and work, or in focusing on work. Because becoming a NEET was not part of the original aspirations of any of the interviewees, the causes and determinants that led them to occupy such positions will also be examined.

Finally, there is a small group which represent 6 per cent of the total that did not graduate from the MMDT, so they have not started a transition process and continue as apprentices.

As these results show, there is limited correspondence between the original aspirations exhibited by MMDT apprentices at the moment of Wave 1, and their educational and labour situation at the moment of Wave 2. Building on an analysis of apprentice's responses, we observe three different lines of reasoning and decision-making rationales behind the different paths and transitions experienced by apprentices during this time window. In the following sections, we present and discuss each one of them. We find thus a first group of apprentices who readjusted their aspirations by settling for a second-best option (either in relation to higher education and/or the labour market); a second group of apprentices who could afford to stick to their original expectations; and a third group that relied on a

delay strategy, by waiting for (education or labour) opportunities to improve and putting their plans on hold. We further explain and analyse each path in the following subsections.

5.1. Transition Path 1: The apprentices that chose a second best

As noted above, an important share of the apprentices appeared to have *readjusted* their aspirations by the time of the second interview –in particular, their work-related aspirations. In other words, they had settled for a second-best option that, despite being far removed from their original aspiration, they judged a better-suited course of action *in the light of the present circumstances*. The interviews revealed that many of these work-related readjustments were motivated by the disruptive impact of COVID-19. Thus, many of those interviewees approaching DA companies as an employability strategy and aspiring to join the labour market after graduating, had been forced to adjust their initial work-related expectations –either by delaying their transition into the (formal) labour market and focusing exclusively on HE, or by accepting posts considerably removed from their area of specialization.

This is so as a result of two separate (but closely interlinked) reasons. A first factor has to do with the general slowdown of economic activity that resulted from long periods of lockdown. Such deceleration translated into fewer employment opportunities and led a number of interviewees to enter non-qualified posts or to focus on higher education in the hopes of better opportunities. Secondly, whereas in the context of the first interview, many of the interviewees motivated by the DA companies' employment prospects were convinced that the DA company would offer them a position after their training period, such promises rarely materialized. This is widely attributed to the disruption caused by COVID-19, which forced the companies to shut down temporarily, or discouraged them from recruiting additional staff. The impact of such transformation, that led many apprentices to abandon their labour aspirations, or to settle for non-qualified job posts, is captured in the words of a male MMDT graduate in the electromechanics field. The son of a factory worker in a single-earner household, he reports how he has stuck to the pizzeria post he already had during his participation in the program, despite not judging it as a satisfactory position:

- Apprentice: I continued working in the pizzeria. The one from before. I went out to look for work in companies, I went to ask at Deacero (DA company). But because of the situation they had no job vacancies.
- Interviewer: Would you say that you are satisfied with the job you have?
- Apprentice: At the moment, no. (Interview C-SL-EL-M2-2)

A similarly reasoning is exhibited a female graduate in the hospitality - the daughter of a single mother with primary education and employed in commerce. The interviewee comments that her expectation to be hired by the DA company had not materialized, referring explicitly on the need to 'adjust': "I would have liked to be hired by the company where I finished my dual training, since it was a higher-category hotel, a better hotel than

the one where I work now [...] but the important thing is to adapt, there is not so much activity, we are in the middle of a pandemics [...] but I still aspire, I aspire to more than what I have by now” (Interview E-NP-HT-F1)

Importantly, the decision to settle down for a non-qualified job (rather than abandoning work-related aspirations altogether, focusing instead on HE or remaining NEET) appears to be directly mediated by the SES of the MMDT graduates. It appears thus that apprentices' socioeconomic vulnerability conditioned their capacity to remain unemployed, and to adopt a discriminating approach when considering job offers. Thus, apprentices from more vulnerable households were those that more frequently had to readjust their work-related aspirations, accepting low-paying jobs rather than waiting for things to improve (or for better job offers to come up). This was for instance the case of apprentices from single-parent households, or apprentices from large families with only one or two low-wage earners - and thus in more urgent need to have additional sources of income. It was also the case of families with a migrant background and a thin social and economic safety net, or families working mainly in the informal economy. In the light of these difficulties, graduates in this group ended up entering the labour market with little regard for the correspondence between the post and their field of studies. The words of a female mechatronics graduate, the daughter of a construction worker with secondary education, currently working in a grocery store capture well this line of reasoning:

I used to have other expectations, I wanted to pursue my studies while working on something related to mechatronics, my speciality... I would have liked to be in a company developing my skills”, she noted that such job was crucial for her to pay for her university fees. She thus noted, “It’s thanks to this job that I can continue studying, but the challenge is the pressure, sometimes I cannot attend a course, then I feel I’m not learning what I need to learn, but I always try to catch up to make sure it won’t have such a negative impact on me... (Interview C-SL-MC-F2).

5.2. Transition Path 2: The apprentices that fulfilled their expectation

We observe a second group of apprentices who managed to stick to their initial aspirations. This group of graduated apprentices joined either HE or the labour market, or managed to combine HE and work, in line with *their* aspirations as expressed at the moment of Wave 1. This group can be divided into two sub-groups. Thus, some of the interviewees managed to fulfil their expectation *exactly* in accordance with their original plans. In other words, this group managed to get access into their preferred HE option, got the job offer that were hoping for (in the dual company) or had the opportunity to combine HE education with a job. The other subgroup reported to have adjusted their original plans by either joining a different university (mostly in the private low-cost spectrum) or by joining a company other than their dual company (but one directly connected to their field of studies). In both subgroups graduated apprentices often referred to their “luck” and to their flexibility and adaptability, which they frequently acknowledged to be afforded by economic and family stability. The students that follow this path, have in common a low medium income but also a solid nuclear family, either mother and father

providers and having reached upper secondary education, and frequently exhibiting comparatively higher levels of social and cultural capital. This is for instance the case of the following apprentice - the daughter of a gas-station manager, with two older siblings already in higher education and an aunt directly employed in the TVET administration. The interviewee reports how their relatives have encouraged her to aim high while providing her with useful advice in terms of educational opportunities. Regarding her own situation right after completing the MMFD program, she notes:

- Apprentice: I am studying Industrial Engineering at TEC Laguna. I lasted five months without leaving home, but I'm just getting back to my new normal, I'm going to school online and now I've been working in another company for a week.
- Interviewer: So, do you consider that your aspirations or your expectations as a Dual student are being fulfilled with your current situation?
- Apprentice: Yes, despite the contingency, I thought that my expectations were not really going to be fulfilled given all the crisis that the world is going through. (Interview C-TR-QJ-F1-2)

In fact, some apprentices explicitly referred to the fact that the economic support from their families has been instrumental for them to continue with their plans. They also highlighted the importance of their parents' emotional support in their decision-making and adjustment process. As the son of a driver and factory worker report:

- Interviewer: how do you manage financially with your studies?
- Apprentice: Right now, my parents are helping me for college, that's why I was looking for a job, although right now they are helping me financially. There is no problem, that's what they told me. (...) When I start working, I want to take care of most of the things, the normal things, as I said, when I start working, I won't give them any problems, that's why I want to start working so I don't give them more expenses than normal. (Interview C-SL-MC-M1)

To be sure, some apprentices made minor adjustments in study plans; however, the adjustments are mainly due to changes in study areas, where students report to have changed their mind based on their dual experience. Those who made their transition by changing field of studies mentioned that their experience in the MMDT had allowed them to "chose better" the path they want for their career and professional development. In this sense, changes in the educational pathways made by these group of apprenticeships can be considered an instance of refinement rather than of adjustment.

5.3. Transition Path 3: The apprentices that decided to wait

We observe a group of apprentices who chose not to fulfil their expectations immediately but rather engaged in a delay strategy. This was particularly the case of apprentices with better socioeconomic status - apprentices that have families with both parents in formal employment, those from small families with no more than two children and apprentices

with older siblings who no longer depend on the family income. Other observed characteristic of this group is that most of these apprentices had approached the MMDT as an intermediate step in the pursuit of further studies, and thus aspiring to join HE after graduating.

The COVID-19 outbreak led this group of MMDT graduates to 'put on hold' their HE aspirations. This is largely the consequence of the fact that the transition towards blended (or distance) learning des-incentivized some apprentices from continuing their studies. This was the case of those exhibiting a more expressive motivation, which had a clear preference for face-to-face teaching. Conversely, interviewees more interested in the instrumental value of education (and by the employment opportunities afforded by certain titles) were less likely to be discouraged by blended learning. Similarly, many in this group of graduated apprentices also postponed their transition into the labour market - since they judged existing offers too risky or too far removed from their own area of specialization. In other words, these TVET graduates that decided to adopt a more discriminating approach in their transition to the labour market. They were open to reject job offers if they did not judge them as a worthy opportunity and adopted a less active attitude in their search for a job, remaining unemployed for some time. This was the case of an unemployed apprentice, the son of a hospitality worker employed in a family business, that reasoned: "I didn't apply although I had the opportunity to get these jobs, but they were not focused in the area I know about, which is accounting, they were other employments such as call centres and so on" (Interview C-TR-MH-M1).

Remarkably, some of the apprentices in this group had performed a transition into the labour market and education right after the end of the MMDT, but dropped out as a response to the outbreak and COVID pandemic. The following statement of a female apprentice in Coahuila shows a transition path where she decided to drop out from university because she did not believe her university experience was being satisfactory. In her own words the experience as a fresher at university should be different. She missed the interaction between teachers and students, as well as between peers. She decided to drop out to wait until the COVID-19 situation improved and for HE institutions to reopen.

- Apprentice: So, you had started university, but you dropped out?
- Interviewer: Yes, in fact I had taken exams but afterwards I said no, I better stop here. The truth is online education is not for me, I do not adapt, I know that I must learn to adapt but the truth is very complicated. I cannot learn, then I decided to stop for that very reason. I will go back when this (COVID-19) finishes. (Interview E-NP-CN-F1)

We also observe a couple of young MMDT graduates who got a job offer at the DA company, but who, because of the pandemic, decided to quit. This was particularly frequent at the State of Mexico where apprentices had to commute long distances to get to the DA companies and felt the risk was higher because of the transport. The following apprentice quit her job, which she described as very enjoyable and a great opportunity. Instead, she decided to stay at home. It is relevant to mention that the two apprentices who said quit

were working in hospitality company, companies which were very affected by the lockdown policy. An example of their line of reasoning can be captured in the following exert from a female apprentice - the daughter of a municipal employee and a housewife, both in possession of upper secondary education:

- Interviewer: And did you received a job offer from the hotel?
- Apprentice: Yes, I received it.
- Interviewer: Did you accept it?
- Apprentice: Yes, I accepted before all this pandemic. I was already working there. But now, given all this happening, I decided to leave because of how things were. It was very difficult, more for my health. (Interview E-NP-HT-F2)

The COVID-19 pandemic for many others was stressful and challenging. Young MMDT graduates worried about contracting the virus and making their family members sick. In words of a female student in Coahuila, who initially had the expectation to combine further education and work, taking the risk to achieve her goals during the lockdown was not worth it. The interviewee, herself the daughter of a teacher with university education, and of an event coordinator with upper secondary education, remarks:

- Interviewer: If I remember correctly, the last time you said that you would like to work at the same time as studying, why are you not following this path?
- Apprentice: I think that perhaps because of fear of getting infected with the virus or working with people who may not take good care of themselves, who do not give so much importance to this situation. I care about my family; I don't want them to also be affected. I can wait until all these finishes. (Interview C-SL-MC-F3-2)

We also observe a group of apprentices who decided to put their plans on hold completely form the very start of the pandemic. This group said they had the support from their parents and family to hold on. Some of them mentioned they would wait for a year until the next academic year to start a HE application, others mentioned that would start job hunting when the “pandemic got stable” or the “situation went back to normal”. This is for instance the case of a male apprentice, with the two parents securely employed and two older siblings in the university:

- Interviewer: Have you faced any difficulties due to the current situation? Let's say to achieve your goals...
- Apprentice: No, I have not had problems until now.
- Interviewer: Any problem financially to make your job applications or for university?
- I did not had any problem. My parents help me, they tell me that if at some point, I feel stuck either financially or otherwise, they could help me. (...) I plan in a year to apply for university if the pandemic improves. If it does not improve, I will study online. I want to have my degree, you could say I want a better job, of course. (Interview E-IB-MH-M1)

6. Discussion and Conclusions

This article contributes to the study of youth transitions by examining how COVID-19 mediates as a structural factor in the paths followed by participants in a dual TVET program. Our analysis departed from the assumption that COVID-19 has affected current labour market conditions while intensifying pre-existing inequalities, and that the effects were likely to be particularly severe for young people who are about to leave school and enter the labour market. The research was informed by the results of a longitudinal research design consisting of two waves of in-depth interviews with a sample of 52 apprentices in two states of Mexico (Coahuila and State of Mexico) who completed the MMDT program during the COVID-19 lockdown.

Our results show that COVID-19 operated as a key structural factor that changed dramatically how post-MMDT transitions operate. In line with the findings of Winn and colleagues (2021) COVID-19 lockdown reduced MMDT apprentices' learning opportunities from in-situ work, thus transforming the overall program experience. Additionally, as COVID-19 lockdown drifted apprentices away from their DA companies, potential networking opportunities as well as the possibility of obtaining an entry level position within the dual companies were reduced to nil. In this sense, COVID-19 drastically diminished individuals' ability to perform their preferred transitions. Yet the strategies through which apprentices navigated such complex and unexpected environment were far from homogeneous or unitary. Apprentices with a comparatively better socioeconomic situation could afford to adopt to wait for the improvement of the situation (for instance by their incorporation into further education or the labour market). Apprentices from a better-off background could also afford a more selective approach in their transition to HE and the labour market - for instance by rejecting job offers they did not judge worthy of their training, or by adopting a less active attitude in their quest for a job, remaining unemployed for some time if necessary. Conversely, apprentices enjoying limited economic security were more likely to readjust their aspirations opting for second-best options. In that sense, the level of agency that graduated apprentices exhibited in their transitions depends greatly on their socioeconomic status. This is in line with the arguments advanced by Tarabini and Ingram (2018), who noted that the educational transitions of young people are episodes in which the relative vulnerability of students becomes more evident. It also resonates with Heinz (2009) observation on the fact that 'In times of recession, the distinctive linkages between education and the labour market, which reflect and reinforce societies' social class structure by directing young people into vastly different life courses, become more visible' (p. 394). Overall, our findings point to the need of bringing social inequalities and social structure when analysing the impact of specific education programs (such as MMFD) in the configuration of youth trajectories.

The long-term effects of the labour and educational-decisions made in the times of COVID-19 remain to be seen. Hence, those apprentices having opted for low-skilled jobs (or jobs removed from their area of specialization) or having renounced to their university

plans often seen these decisions as temporary and expect to return to their original aspirations when the economic situation improves. Yet the more immediate impact of these decisions will necessarily have an impact in the transitions of MMFD over the years to come. Precisely because transitions are the *cumulative* result of choices and decisions, the significance and consequentiality of apparently 'temporary' or 'provisional' work and educational arrangements cannot be neglected.

The three transition paths discussed in this paper show that the MMDT program has barely mitigated the effect of social inequalities, and that the unexpected structural changes such as COVID-19 lockdown aggravated the differences between apprentices. Against the notion that the COVID-19 pandemic has operated as 'the greater equalizer', our findings show that the COVID-19 scenario has tended to reinforce and magnify existing social and educational inequalities. The capacity of MMDT graduates to negotiate their own position and opportunities in a highly uncertain context was greatly conditioned by their socioeconomic position. The relative sense of economic security was in fact a condition *sine qua non* for graduates to adopt a discriminating approach when entering the labour market or HE education. Similarly, students from a better-off background were the only ones that could afford to engage in risk-averse behaviours - i.e., avoiding jobs that required long transportation hours in crowded environments.

It stems from the above that, in the highly unequal contexts such as the Mexican one, dual TVET programs appear to exhibit important limitations when it comes to improving the opportunities of the most disadvantaged social groups. This is exacerbated in the context of uncertainty brought by COVID-19, in which flexibility becomes a highly rewarded competitive advantage. Conversely, the MMDT appears to be more effective in supporting the transitions of advantaged students, who can afford slower and more controlled transitions into the labour market and resort to private HE if public options are not accessible to them or aligned with their changing needs.

These are findings with relevant policy implications in a context of consolidation and expansion of dual training programs in Mexico. First, and if MMFD aims at realizing its equity promise, a more pro-active effort is needed in terms of guidance and orientation for program graduates. Our research shows that the knowledge of post-MMFD and educational opportunities and of the HE landscape is very unequal among graduates. This might explain why, in a context of disruption and uncertainty, some of them are more likely to abandon plans of academic continuity or to opt for high-cost, low-quality alternatives. Guidance activities organized in the context of the school can help mitigating these differences. With dual training no longer understood as a 'terminal option' directly leading to the labour market, the absence of career-advice and orientation mechanisms reduces the equity potential of such programs. Secondly, our findings also indicate that too much trust is placed on the capacity of dual companies to eventually integrate apprentices as employees. This is indeed one of the manifestations of the 'institutional contact' mechanism advanced by Ryan (2012) to explain the advantage of dual training programs over other TVET arrangements. However, the reliance on such dynamics seems

ill-advised in a rapidly changing, an economically unstable context and a volatile labour market. Conversely, there are different in ways in which the MMFD program could support apprentices in taking full advantage of the 'employability premium' they have acquired through the program. Some options here include institutionalizing a job bank for MMFD graduates or making sure that the degree and accreditations acquired by apprentices reflect the specificity of their training and are recognized and understood by employers. Such strategies would reinforce the signalling and networking potential of the program - avoiding an over-reliance on the institutional contact mechanism.

At the end of the day, transitions do not occur in a vacuum but are crucially shaped by the very organization of the educational sector in which they are taking place, among other factors (cf. Tarabini & Ingram, 2018). Making sure that the design of the MMFD is aligned and coherent to its own equity goals is thus a necessary step to ensure that dual training operates as a corrective rather than a magnified of social inequalities.

Bibliographic references

- Aldinucci, A., Valiente, O., Hurrell, S., & Zancajo, A. (2021). Understanding aspirations: why do secondary TVET students aim so high in Chile? *Journal of Vocational Education & Training*, 1-22. DOI: <https://10.1080/13636820.2021.1973543>
- Ball, S. J., Maguire, M., & Macrae, S. (2000). *Choice, pathways and transitions post-16*. Routledge Falmer.
- Brull, F.E. (2022) *Improving Access to Better Job Opportunities for Students in an Apprenticeship-Based High School Program*. VANDERBILT UNIVERSIT. Vanderbilt University Institutional Repository. <http://hdl.handle.net/1803/17498>
- Côté, J. E. (2014a). Towards a new political economy of youth. *Journal of Youth Studies*, 17(4), 527- 543.
- Côté, J. E. (2014b). *Youth studies: Fundamental issues and debates*. Houndmills: Palgrave Macmillan.
- Du Bois-Reymond, M. (2009). Integrated transition policies for European young adults: Contradictions and solutions. In I. Schoon & R. K. Silbereisen (Eds.), *Transitions from school to work: Globalization, individualization, and patterns of diversity* (pp. 331-352). New York: Cambridge University Press.
- Furlong, A., Cartmel, F., Biggart, A., Sweeting, H., & West, P. (2003). *Youth transitions: Patterns of vulnerability and processes of social inclusion*. Edinburgh: Scottish Executive Social Research.
- Furlong, A. (2009). *Handbook of youth and young adulthood. New perspectives and agendas*. London: Routledge.
- Furlong, A. (2016). The changing landscape of youth and young adulthood. In A. Furlong (Ed.), *Routledge Handbook of Youth and Young Adulthood*. London: Routledge.

- Gale, T., & Parker, S. (2014). Navigating change: a typology of student transition in higher education. *Stud High Educ*, 39(5), 734-753. DOI: <https://10.1080/03075079.2012.721351>
- Guzmán Gomez, C. (2020). Daños y saldos de la pandemia por covid-19 en escuelas vulnerables: el caso de los Telebachilleratos Comunitarios en México. Paper presented at the Consejo Mexicano de Investigación Educativa, A.C, online.
- Heinz, W. R. (2009). Youth transitions in an age of uncertainty. In A. Furlong (Ed.), *Handbook of youth and young adulthood new perspectives and agendas* (pp. 19-29). Oxon: Routledge.
- Hernández-Fernández, J., Marsán, E., Jacovkis, J., and Fontdevila, C. (2021). Apprentices' trajectories in Mexico: from motivations to outcomes. Research report. <https://dualapprenticeship.org/wp-content/uploads/2021/09/Research-Summary-Mexico-WP3.pdf>
- Keskiner, E. (2019). *Youth Transitions among Descendants of Turkish Immigrants in Amsterdam and Strasbourg: A Generation in Transition*. Cham, Switzerland: Springer International Publishing.
- Kovacheva, S., Jacovkis, J., Startari, S., & Siri, A. (2020) Are lifelong learning policies working for youth? Young people's voices In Parreira do Amaral, M., Kovacheva, S & Rambla, X., (2020) *LIFELONG LEARNING POLICIES FOR YOUNG ADULTS IN EUROPE Navigating between Knowledge and Economy*. Policy Press, Bristol.
- Linneberg, M., & Korsgaard, S. (2019). Coding qualitative data: a synthesis guiding the novice. *Qualitative Research Journal*, 19(3), 259-210. DOI: <https://doi.org/10.1108/QRJ-12-2018-0012>
- Lub, V. (2015). Validity in Qualitative Evaluation. *International Journal of Qualitative Methods*, 14(5). DOI: <https://doi.org/10.1177/1609406915621406>
- Ministry of Upper Secondary School. (2013). *Modelo Mexicano de Formación Dual*. Retrieved from Mexico City: <http://www.sems.gob.mx/work/models/sems/Resource/12162/4/images/mmfd.pdf>
- Pilz, M. (2017). *Vocational Education and Training in Times of Economic Crisis. Lessons from Around the World* (Vol. 24). Cham, Switzerland: Springer.
- Rodriguez-Abitia, G. (2021). Coping with COVID-19 in Mexico: Actions for Educational Inclusion. *Communications of the Association for Information Systems*, 48, 93-101. DOI: <https://doi.org/10.17705/1CAIS.0481>
- Román Sánchez, Y. G. (2013). Impactos sociodemográficos y económicos en la precariedad laboral de los jóvenes en México. *Región y sociedad*, 25(58), 165-202. Retrieved from http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S1870-39252013000300006&lng=es&tlng=es
- Rudd, P., & Evans, K. (1998). Structure and agency in youth transitions: student experiences of vocational further education. *Journal of youth studies*, 1(1), 39-62.

- Ryan, P. (2012). Apprenticeship: Between theory and practice, school and workplace. In *The Future of Vocational Education and Training in a Changing World* (pp. 402-432).
- SEMS (2017) "¿Qué es la SEMS? La educación media superior en el sistema educativo nacional. SEP.
http://educacionmediasuperior.sep.gob.mx/es_mx/sems/ems_sistema_educativo_nacional
- SEMS (2022), "Nuevos lineamientos para la impartición de la Educación Dual del tipo medio superior permitirán beneficiar a un mayor número de estudiantes, escuelas y empresa". Boletines informativos SEMS, March 22, 2022.
http://educacionmediasuperior.sep.gob.mx/es_mx/sems/Nuevos_lineamientos_para_la_imperticion_de_la_Educacion_Dual_del_tipo_medio_superior_permitiran_beneficiar_a_un_mayor_numero_de_estudiantes_escuelas_y_empresa
- SEP (2021). Estadística Educativa. México. Ciclo escolar 2020-2021. Dirección General de Planeación, Programación y Estadística Educativa.
http://planeacion.sep.gob.mx/Doc/estadistica_e_indicadores/estadistica_e_indicadores_entidad_federativa/estadistica_e_indicadores_educativos_15MEX.pdf
- Tanner, J. L., & Arnett, J. J. (2016). The emergence of emerging adulthood: the new life stage between adolescence and young adulthood. In A. E. R. H. o. Y. a. Y. A. n. e. R. h. d. o. Furlong (Ed.), *Routledge Handbook of Youth and Young Adulthood* (2nd ed.). Routledge. London: Routledge.
- Tarabini, A., & Ingram, N. (2018). Introduction. Setting the scene for the analysis. In A. Tarabini & N. Ingram (Eds.), *Educational Choices, Transitions and Aspirations in Europe* (pp. 4-12). Routledge.
- Tett, L., Cree, V. E., & Christie, H. (2017). From further to higher education: transition as an on-going process. *High Educ*, 73, 389-406. DOI: <https://10.1007/s10734-016-0101-1>
- Thalheim, L. (2018). *El Modelo Mexicano de Formación Dual en la inserción laboral de los jóvenes*. (Maestría en Políticas Públicas). Universidad Michoacana de San Nicolás Hidalgo.
- Winn, A. S., Weaver, M. D., O'Donnell, K. A., Sullivan, J. P., Robbins, R., Landrigan, C. P., & Barger, L. K. (2021). Interns' perspectives on impacts of the COVID-19 pandemic on the medical school to residency transition. *BMC Medical education*, 21(330), 1-9. DOI: <https://doi.org/10.1186/s12909-021-02777-7>
- Zamora-Torres, A.-I., & Thalheim, L. (2020). El Modelo Mexicano de Formación Dual como modelo educativo en pro de la inserción laboral de las y los jóvenes en México. *Revista iberoamericana de educación superior*, 11, 48-67. Retrieved from http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S2007-28722020000200048&nrm=iso

Author contributions: J.H.F contributed to the planning, design, and development of the research work; as well as the writing of the manuscript and the attention to comments by the editors and

evaluators. C.F contributed to the development of the analysis, writing of the manuscript, making improvements, and handling comments. E.M contributed to the development of the research work, to the writing of the manuscript and to the attention of comments.

Funding: The data collection was part of a larger research project entitled: "Can dual apprenticeships create better and more equitable social and economic outcomes for youth? A comparative study of India and Mexico." The study was funded by the Economic and Social Research Council (ESRC) and the Global Challenges Research Fund (GCRF). In this article we present the data collection for Mexico only.

Acknowledgments: The authors are grateful for the support of the University of Glasgow as the university that sponsored the research project and in particular Dr. Óscar Valiente for his support during the data collection and analysis process.

Conflict of interest: There are no conflicts of interest for the publication of this manuscript.

Ethical statement: The research process was carried out in accordance with the ethical principles established by the scientific community.

How to cite this article:

Hernández-Fernández, J; Fontdevila, C. & Marsán, E. (2022). Post-dual training transitions in Mexico: apprentices' strategies during the covid-19 lockdown. *Profesorado. Revista de Currículum y Formación de Profesorado*, 26(3), 53-76. DOI: 10.30827/profesorado.v26i3.23542