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*Title:*

**Amidst reforms**

*Mexican Teacher Evaluation and Professional Development from the perspective of teachers,  
headteachers, and policymakers.*

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Amidst reforms: Mexican Teacher Evaluation and Professional Development from  
the perspective of teachers, headteachers, and policymakers.

Artemio Arturo Cortez Ochoa

A dissertation submitted to the University of Bristol in accordance with the requirements for award of the degree of Doctor of Philosophy (PhD) in the Faculty of Social Science and Law, School of Education, April, 2020.

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## Abstract

Current knowledge regarding Teacher Evaluation Systems (TES) as a suitable approach to quality education improvement suggests that the relationship between teacher monitoring and enhancement is far from straightforward. Yet, developing countries such as Mexico have uncritically employed variants of these reforms since the early 1990s to bring about change with regards to levels of quality teaching and learning. Although teachers and headteachers are in everyday contact with education policies, these actors are rarely consulted regarding TES development. Therefore, this exploratory research examined teachers', headteachers' and policymakers' perspectives concerning the strengths, weaknesses, and unintended consequences of a new TES called the Mexican Teacher Evaluation (MTE). Since full implementation of MTE started in 2015, the availability and impact of Continuing Professional Development (CPD) on the teachers' practice before and after MTE (i.e. the academic years 2014-2015 and 2016-2017) were investigated. This sequential mixed-methods research collected data via an online survey of primary teachers across Mexico using online teachers' networks ( $n=367$ ) and semi-structured interviews ( $n=13$ ). Of the total participants,  $n=131$  participated in MTE and provided an insight into the procedures of the new TES as well as opportunities for CPD after the evaluation. Descriptive and inferential statistical analyses of quantitative data and a thematic analysis approach of qualitative data were employed.

The findings indicated that in 2014-2015, overall teacher participation was lower than previous records from a TALIS-Mexico report (Backhoff & Pérez-Morán, 2015). Nevertheless, most common CPD topics are like those in previous literature and were perceived impactful on the practice. Furthermore, a series of preparatory courses tailored to MTE emerged during 2014-2015. Concerning the strengths of MTE, the new TES was perceived as a better scheme for teacher hiring and promotion as compared with the former method where the teachers' union held significant power. However, only half of the surveyed MTE participants highlighted the value and positive nature of feedback following assessments. Regarding the weaknesses, MTE lacks classroom observations, tailored CPD following the evaluations, and appropriate follow-up of Newly Qualified Teachers (NQT) and in-service teachers after the assessment. Regarding the unintended consequences, MTE might have negatively impacted the teachers' wellbeing at various points of MTE implementation; however, the TES might have encouraged teachers to become involved in their preparation for the assessments. There is evidence that teachers focused on the summative aspects of the evaluation more than the developmental ones, although the rationales varied. This research concluded that TES in Mexico is not yet fit for purpose after both positive and negative aspects of new MTE policies were observed. Moreover, additional reforms to support educational quality improvement are required. The teachers' self-perceived needs in terms of CPD, as well as standards that recognise professional development according to teaching experience, seem essential for success.

## Dedication

To my beloved wife, Carolina.

I've made a place where you can go back to remember that these have been the happiest years of my life; do you know why? Because of you. Indeed, the PhD journey has been the most challenging episode of this story so far, but one that I enjoyed every single day; do you know why? Because every morning, afternoon and evening you were there, you and your loving arms. My joy is yours, and my biggest accomplishment is to gain your love. Because I give you all of me, and you give me all of you, wherever you are I call it home.

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## Author's Declaration

I declare that the work in this dissertation was carried out in accordance with the requirements of the University's *Regulations and Code of Practice for Research Degree Programmes* and that it has not been submitted for any other academic award. Except where indicated by specific reference in the text, the work is the candidate's own work. Work done in collaboration with, or with the assistance of, others, is indicated as such. Any views expressed in the dissertation are those of the author.

SIGNED: ..... DATE: .....

# Table of Contents

|   |            |
|---|------------|
| <i>Acronyms</i> .....   | <i>xii</i> |
| <i>List of tables</i> .....   | <i>xiv</i> |
| <i>Table of figures</i> .....   | <i>xv</i>  |
| <b>1 Introduction</b> .....   | <b>1</b>   |
| <b>1.1 The research problem</b> .....                                 | <b>1</b>   |
| <b>1.2 Academic rationale</b> .....                                   | <b>4</b>   |
| <b>1.3 The national rationale - Mexico</b> .....                      | <b>7</b>   |
| <b>1.4 The rationale on a personal level</b> .....                    | <b>10</b>  |
| <b>1.5 Aim and objectives</b> .....                                   | <b>11</b>  |
| <b>1.6 Theoretical and conceptual frameworks: an overview</b> .....   | <b>12</b>  |
| <b>1.7 Research design and Research Questions</b> .....               | <b>12</b>  |
| <b>1.8 The organisation of the thesis</b> .....                       | <b>15</b>  |
| <b>2 Research context</b> .....                                       | <b>18</b>  |
| <b>2.1 Introduction</b> .....   | <b>18</b>  |
| <b>2.2 An overview of the Mexican education system</b> .....          | <b>18</b>  |
| 2.2.1 Teachers and teacher organisations .....                        | 20         |
| 2.2.2 The right to education before the reform of 2013 .....          | 21         |
| 2.2.3 Initial Teacher Education before the reform .....               | 21         |
| <b>2.3 Issues on education quality before the reform</b> .....        | <b>24</b>  |
| 2.3.1 Contextual issues related to education quality .....            | 26         |
| <b>2.4 Previous teacher evaluation programmes</b> .....               | <b>27</b>  |
| 2.4.1 Carrera Magisterial: a teacher professional career ladder ..... | 27         |
| 2.4.2 The entrance examination .....                                  | 28         |
| 2.4.3 The universal teacher evaluation.....                           | 29         |
| <b>2.5 State-provided CPD before the reform</b> .....                 | <b>30</b>  |
| 2.5.1 Collective forms of teacher development .....                   | 32         |
| 2.5.2 Individual-oriented teacher development.....                    | 33         |
| 2.5.3 Teacher CPD before the reform: evidence from TALIS 2013.....    | 34         |

|            |   |           |
|------------|---|-----------|
| 2.5.4      | Concluding statements on CPD before the education reform of 2013 .....      | 35        |
| <b>2.6</b> | <b>The education reform of 2013 .....</b>                                   | <b>36</b> |
| 2.6.1      | Initial Teacher Education following the reform of 2013 .....                | 37        |
| 2.6.2      | The right to quality education.....   | 38        |
| <b>2.7</b> | <b>Mexican Teacher Evaluation (MTE).....</b>                                | <b>38</b> |
| 2.7.1      | Teaching standards in MTE .....   | 40        |
| 2.7.2      | MTE phases: the teacher evaluation instruments .....                        | 41        |
| 2.7.3      | Teachers' results in MTE .....  | 44        |
| 2.7.4      | Summative consequences in MTE .....   | 45        |
| 2.7.5      | Formative components of MTE: feedback report and CPD .....                  | 45        |
| 2.7.6      | Implementation issues .....   | 46        |
| 2.7.7      | Critiques of MTE concerning years of teaching experience .....              | 47        |
| 2.7.8      | Existing research about MTE.....  | 48        |
| <b>2.8</b> | <b>State-provided CPD after MTE .....</b>                                   | <b>51</b> |
| 2.8.1      | Collective forms of teacher development .....                               | 51        |
| 2.8.2      | Individual-oriented teacher development.....                                | 52        |
| 2.8.3      | Teacher study groups, freelancers and the teachers' union .....             | 54        |
| <b>2.9</b> | <b>Summary of the Chapter .....</b>   | <b>55</b> |
| <b>3</b>   | <b>Literature review .....</b>  | <b>58</b> |
| <b>3.1</b> | <b>Introduction .....</b>   | <b>58</b> |
| <b>3.2</b> | <b>Quality education .....</b>  | <b>59</b> |
| 3.2.1      | The human rights and the human capital approaches to quality education..... | 60        |
| 3.2.2      | The UNESCO and the OECD in matters of quality education.....                | 61        |
| 3.2.3      | Educational Effectiveness Research in matters of quality education.....     | 63        |
| 3.2.4      | Concluding statements on quality education .....                            | 67        |
| <b>3.3</b> | <b>Two models of teacher quality that inform this research.....</b>         | <b>67</b> |
| 3.3.1      | Naylor and Sayed (2014) conceptual framework of teacher quality .....       | 68        |
| 3.3.2      | Goe (2007): teacher quality as inputs, processes and outcomes .....         | 69        |
| 3.3.3      | Teacher quality considering inputs .....                                    | 71        |
| 3.3.4      | Teacher quality considering processes .....                                 | 75        |
| 3.3.5      | Teacher quality as students' gains .....                                    | 80        |
| 3.3.6      | Concluding statements on approaches to evaluating teacher quality .....     | 82        |
| <b>3.4</b> | <b>Teacher standards and frameworks.....</b>                                | <b>83</b> |
| 3.4.1      | Critiques of teaching standards and frameworks.....                         | 85        |



|            |   |            |
|------------|---|------------|
| <b>3.5</b> | <b>Teacher Evaluation Systems: a response to low-quality education.....</b>                 | <b>85</b>  |
| 3.5.1      | Evidence on the positive impact of TES for teaching improvement.....                        | 87         |
| 3.5.2      | Formative, and summative consequences of TES.....   | 88         |
| 3.5.3      | Unintended consequences of TES.....   | 90         |
| 3.5.4      | Concluding statements on TES.....   | 91         |
| <b>3.6</b> | <b>Teacher Continuing Professional Development .....</b>                                    | <b>92</b>  |
| 3.6.1      | Conceptualising teacher development .....   | 92         |
| 3.6.2      | Rationales underpinning CPD in education policy and the self .....                          | 93         |
| 3.6.3      | Theoretical approaches to teacher and student learning .....                                | 95         |
| 3.6.4      | Formal and informal CPD .....   | 98         |
| 3.6.5      | Collective CPD: Professional Learning Communities and Communities of practice.....          | 99         |
| 3.6.6      | Individual-oriented CPD .....   | 101        |
| 3.6.7      | Successful CPD: a pathway.....  | 104        |
| 3.6.8      | Concluding statements on teacher Continuing Professional Development.....                   | 107        |
| <b>3.7</b> | <b>Summary of the Chapter and Research Questions (RQs).....</b>                             | <b>108</b> |
| <b>4</b>   | <b>Methodology .....</b>  | <b>112</b> |
| <b>4.1</b> | <b>Introduction .....</b>   | <b>112</b> |
| <b>4.2</b> | <b>Philosophical framework.....</b>   | <b>112</b> |
| 4.2.1      | Pragmatism in this PhD research .....   | 115        |
| <b>4.3</b> | <b>Research design .....</b>  | <b>117</b> |
| 4.3.1      | Data collection methods: an overview .....  | 119        |
| <b>4.4</b> | <b>Online questionnaire: instrument rationale, and development .....</b>                    | <b>120</b> |
| 4.4.1      | Instrument rationale .....  | 120        |
| 4.4.2      | Instrument development (online questionnaire) .....   | 122        |
| <b>4.5</b> | <b>Interviews: instrument rationale, and development .....</b>                              | <b>126</b> |
| 4.5.1      | Instrument rationale .....  | 126        |
| 4.5.2      | Instrument development (semi-structured interviews) .....                                   | 127        |
| <b>4.6</b> | <b>Online questionnaire sampling, data collection, and participants' demographics .....</b> | <b>130</b> |
| 4.6.1      | Sampling strategy: online questionnaire .....   | 130        |
| 4.6.2      | Data collection procedure: online questionnaire .....                                       | 131        |
| 4.6.3      | Survey participants' demographics.....  | 132        |
| <b>4.7</b> | <b>Interviews recruitment, data collection, and participants' characteristics.....</b>      | <b>135</b> |
| 4.7.1      | Recruitment strategy: interviews.....   | 135        |
| 4.7.2      | Data collection procedure: interviews.....  | 137        |

|             |  |                   |
|-------------|--|-------------------|
| 4.7.3       | Interview participants' characteristics .....  | 137               |
| <b>4.8</b>  | <b>Quantitative data analysis.....</b>   | <b>138</b>        |
| 4.8.1       | Descriptive statistics.....  | 139               |
| 4.8.2       | Inferential statistics: tests of association and difference .....                            | 140               |
| <b>4.9</b>  | <b>Qualitative data analysis .....</b>   | <b>141</b>        |
| 4.9.1       | Steps one to three of thematic analysis .....  | 142               |
| 4.9.2       | Steps four to six of thematic analysis and the generation of common and other themes .....   | 144               |
| <b>4.10</b> | <b>Mix or integration .....</b>  | <b>145</b>        |
| <b>4.11</b> | <b>Quality of data, analysis, and findings.....</b>  | <b>146</b>        |
| <b>4.12</b> | <b>Ethical considerations .....</b>  | <b>147</b>        |
| 4.12.1      | Access to online communities and interviewees .....  | 147               |
| 4.12.2      | Consent forms for both data collection methods and the right to withdraw .....               | 148               |
| 4.12.3      | Right to anonymity and confidentiality throughout the research.....                          | 148               |
| 4.12.4      | Data protection and data storage .....   | 149               |
| <b>4.13</b> | <b>Methodological limitations .....</b>  | <b>149</b>        |
| 4.13.1      | Scope and sample size.....   | 149               |
| 4.13.2      | Survey design.....   | 150               |
| 4.13.3      | Self-report data .....   | 151               |
| <b>5</b>    | <b><i>CPD before 2015-MTE findings .....</i></b>   | <b><i>152</i></b> |
| <b>5.1</b>  | <b>Introduction .....</b>  | <b>152</b>        |
| <b>5.2</b>  | <b>Findings regarding CPD opportunities before 2015-MTE.....</b>                             | <b>153</b>        |
| 5.2.1       | The extent of participation in formal individual-oriented CPD opportunities .....            | 153               |
| 5.2.2       | Most common formal individual-oriented CPD-formats .....                                     | 155               |
| 5.2.3       | Most prominent CPD providers arranged by the State .....                                     | 156               |
| <b>5.3</b>  | <b>The perceived impact, pertinence, and quality of CPD before 2015-MTE.....</b>             | <b>158</b>        |
| 5.3.1       | Take-up in formal individual-oriented CPD-subjects and perceived impact on the practice..... | 158               |
| 5.3.2       | Participation and perceived impact on the practice regarding formal workplace CPD .....      | 163               |
| 5.3.3       | Participation and perceived impact on the practice regarding informal CPD .....              | 167               |
| 5.3.4       | The pertinence of formal CPD delivery-modes.....   | 172               |
| 5.3.5       | A summary of participants' views about the quality of formal CPD before 2015-MTE .....       | 176               |
| <b>5.4</b>  | <b>Key findings of this Chapter.....</b>   | <b>178</b>        |
| <b>6</b>    | <b><i>MTE and the feedback report findings.....</i></b>                                      | <b><i>181</i></b> |

|            |   |            |
|------------|---|------------|
| <b>6.1</b> | <b>Introduction .....</b>   | <b>181</b> |
| <b>6.2</b> | <b>Strengths of MTE .....</b>   | <b>182</b> |
| 6.2.1      | [C] – MTE was perceived as an appropriate framework for teacher hiring and career improvement .....                 | 182        |
| 6.2.2      | [C] - The procedures of MTE, including the feedback report, were perceived as appropriate to enhance teaching ..... | 184        |
| 6.2.3      | [O] – MTE contributes to enhancing the teachers’ professional status .....  | 187        |
| <b>6.3</b> | <b>A summary of the identified strengths of MTE .....</b>   | <b>187</b> |
| <b>6.4</b> | <b>Weaknesses of MTE .....</b>  | <b>188</b> |
| 6.4.1      | [C] – Some aspects that MTE might have neglected due to a lack of consultation .....                                | 189        |
| 6.4.2      | [C] – Issues related to the feedback report and its connection with CPD.....  | 193        |
| 6.4.3      | [O] – The little consideration of teachers’ experience in MTE .....   | 197        |
| 6.4.4      | [O] – Lack of transparent management of MTE’s budget and posts allocation .....                                     | 198        |
| <b>6.5</b> | <b>A summary of the identified weaknesses of MTE .....</b>  | <b>199</b> |
| <b>6.6</b> | <b>Unintended consequences of MTE.....</b>  | <b>200</b> |
| 6.6.1      | [C] – Potential negative impacts on the teachers’ wellbeing .....   | 201        |
| 6.6.2      | [C] – Teacher preparation for MTE via study groups: rationales and actors.....                                      | 204        |
| 6.6.3      | [C] – The general result in MTE as the most important goal teachers followed .....                                  | 205        |
| 6.6.4      | [O] – MTE might contribute to a type of inequality.....   | 207        |
| <b>6.7</b> | <b>A summary of identified unintended consequences of MTE .....</b>   | <b>207</b> |
| <b>6.8</b> | <b>Key findings of this Chapter.....</b>  | <b>209</b> |
| <b>7</b>   | <b><i>CPD after MTE findings</i>.....</b>   | <b>211</b> |
| <b>7.1</b> | <b>Introduction .....</b>   | <b>211</b> |
| <b>7.2</b> | <b>Findings regarding CPD needs and take-up in 2016-2017 .....</b>  | <b>212</b> |
| 7.2.1      | MTE participants’ self-perceived needs regarding formal individual-oriented CPD-subjects in 2016-2017.....          | 213        |
| 7.2.2      | The extent of participation in formal CPD after MTE .....   | 217        |
| 7.2.3      | Formal CPD formats and subjects after MTE .....   | 221        |
| 7.2.4      | Perspectives on the introduction of new formal CPD relevant to the workplace.....                                   | 222        |
| 7.2.5      | CPD providers after MTE.....  | 225        |
| 7.2.6      | Reasons not to participate in formal CPD after MTE.....   | 227        |
| 7.2.7      | Participation in informal CPD after MTE.....  | 228        |
| <b>7.3</b> | <b>The perceived impact, pertinence, and quality of CPD before and after MTE .....</b>                              | <b>229</b> |

|            |  |            |
|------------|--|------------|
| 7.3.1      | Perceived effects of CPD after MTE .....   | 230        |
| 7.3.2      | The pertinence of formal CPD delivery modes during 2016-2017 .....   | 231        |
| 7.3.3      | MTE participants' perceptions on the quality of CPD after MTE.....   | 232        |
| <b>7.4</b> | <b>Key findings of this Chapter.....</b>   | <b>233</b> |
| <b>8</b>   | <b>Discussion .....</b>  | <b>235</b> |
| <b>8.1</b> | <b>Introduction .....</b>  | <b>235</b> |
| <b>8.2</b> | <b>Formal and informal CPD opportunities before 2015-MTE.....</b>  | <b>238</b> |
| 8.2.1      | Formal CPD opportunities before 2015-MTE.....  | 238        |
| 8.2.2      | Informal CPD opportunities before 2015-MTE .....   | 240        |
| <b>8.3</b> | <b>Perceived impact, pertinence and quality of CPD before 2015-MTE .....</b>   | <b>241</b> |
| 8.3.1      | Impact of CPD before 2015-MTE .....  | 242        |
| 8.3.2      | The pertinence of CPD delivery modes before 2015-MTE .....   | 244        |
| 8.3.3      | Quality of CPD before 2015-MTE .....   | 244        |
| <b>8.4</b> | <b>Participation and perceptions of CPD impact on the practice according to teaching experience before 2015-MTE.....</b> | <b>247</b> |
| <b>8.5</b> | <b>The strengths, weaknesses and unintended consequences of MTE .....</b>  | <b>249</b> |
| 8.5.1      | Strengths of MTE.....  | 250        |
| 8.5.2      | Weaknesses of MTE .....  | 253        |
| 8.5.3      | Unintended consequences of MTE .....   | 260        |
| <b>8.6</b> | <b>Teachers' CPD needs and participation in further training in 2016-2017.....</b>                                       | <b>266</b> |
| 8.6.1      | CPD self-perceived needs after MTE.....  | 267        |
| 8.6.2      | Formal individual-oriented CPD opportunities in 2016-2017.....   | 268        |
| 8.6.3      | A contrast of old and new formal CPD formats after MTE .....   | 270        |
| 8.6.4      | Changes regarding CPD provision after MTE .....  | 271        |
| 8.6.5      | Deterrents on participation in formal CPD after MTE .....  | 271        |
| 8.6.6      | Informal CPD after MTE .....   | 273        |
| <b>8.7</b> | <b>A comparison between CPD before and after MTE regarding impact, pertinence and quality 274</b>                        |            |
| 8.7.1      | Impact of CPD after MTE in 2016-2017 .....   | 274        |
| 8.7.2      | The pertinence of CPD delivery modes after MTE.....  | 275        |
| 8.7.3      | Quality .....  | 275        |
| <b>8.8</b> | <b>Conclusions of this discussion Chapter.....</b>   | <b>277</b> |
| 8.8.1      | Concluding statements regarding research question 1 and sub-questions .....  | 277        |

|           |  |            |
|-----------|--|------------|
| 8.8.2     | Concluding statements regarding research question 2 .....                              | 278        |
| 8.8.3     | Concluding statements regarding research question 3 and sub-questions .....            | 279        |
| <b>9</b>  | <b>Conclusions .....</b>   | <b>282</b> |
| 9.1       | A summary of the contribution of this research .....                                   | 283        |
| 9.2       | Recommendations for policy and practice .....  | 295        |
| 9.2.1     | Recommendations regarding future reform to TES.....                                    | 295        |
| 9.2.2     | Recommended changes to teacher preparation processes in Mexico.....                    | 297        |
| 9.2.3     | Suggested approaches to CPD after MTE .....  | 298        |
| 9.3       | The learning acquired and limitations of this research .....                           | 299        |
| 9.4       | Recent policy changes in Mexico .....  | 301        |
| 9.5       | Recommendations for future research .....  | 304        |
| <b>10</b> | <b>References .....</b>  | <b>305</b> |
| <b>11</b> | <b>Appendices .....</b>  | <b>338</b> |
|           | Appendix 1. CENEVAL, who are they? .....   | 338        |
|           | Appendix 2. The technical assistance to the school system and escuelas al cien .....   | 339        |
|           | Appendix 3. The secondary laws, the cogwheels of the education reform.....             | 342        |
|           | Appendix 4. The scope of MTE.....  | 343        |
|           | Appendix 5. The feedback report: an example .....                                      | 344        |
|           | Appendix 6. The framework for Teaching (FfT) (Danielson, 2013) .....                   | 345        |
|           | Appendix 7. Piloting the questionnaire .....   | 346        |
|           | Appendix 8. Piloting the interview protocols .....                                     | 347        |
|           | Appendix 9. Research questionnaire and raw data.....                                   | 348        |
|           | Appendix 10. Interview schedules .....   | 363        |
|           | Appendix 11. Survey distribution campaign: a summary .....                             | 366        |
|           | Appendix 12. A comparison of the number of days in CPD in 2014-2015 and 2016-2017..... | 372        |
|           | Appendix 13. A summary of the codes integrating each theme.....                        | 374        |
|           | Appendix 14. Ethical considerations of this research .....                             | 376        |
|           | Appendix 15. Informal CPD correlations .....   | 382        |

## Acronyms

ALSPAC Avon Longitudinal Study of Parents and Children

BERA British Education Research Association

BOS Bristol Online Survey

CEMABE Mexican Census of Teachers and Schools

CNSPD National Coordinator of the Teaching Professional Service

CNTE National Coordinator of Education Workers

CPD Continuing Professional Development

DOF Official Gazette of the Federation

EER Educational Effectiveness Research

ENLACE National Examination of School Achievement

FfT Framework for Teaching

GDP Gross Domestic Product

ICT Information and Communication Technology

IDB Inter-American Development Bank

INEE National Institute of Educational Evaluation

INEGI National Institute of Geography and Statistics

INSET in-service education for teachers

IOs International Organisations

ISCED International Standard Classification of Education

ITE Initial Teacher Education

LLECE Latin American Laboratory on Quality Education

MET Measures of Effective Teaching

MINEDUC Minister of Education from Chile

MMR Mixed Methods Research

MTE Mexican Teacher Evaluation Policy (2013)

MVS Maximum Variation Sampling

NQT Newly Qualified Teacher(s)

NBPTS National Board for Professional Teaching Standards

OECD Organisation for Economic Co-operation and Development

OEI Organisation of Iberic-American States

OREALC Regional Bureau of Education for Latin America and the Caribbean

PISA Programme for International Student Assessment  
PLC Professional Learning Communities  
SEN Special Education Needs  
SEP Secretary of Education (Mexico)  
SER School Effectiveness Research  
SINADEP The teachers' union Continuous Teacher Professional Development System  
SIR School Improvement Research  
SNTE National Union of Education Workers  
SPSS Statistical Package for the Social Sciences  
TA Thematic Analysis  
TALIS Teaching and Learning International Survey  
TES Teacher Evaluation System(s)  
TIMSS Trends in International Mathematics and Science Study  
TPA Technical Pedagogical Advisors  
UK United Kingdom  
UNESCO United Nations Educational, Scientific and Cultural Organization  
UoB University of Bristol  
USA United States of America  
VAM Value-Added Models

## List of tables

|  |     |
|--|-----|
| Table 2.1. National statistics of primary education teachers' degree-level qualifications.....   | 24  |
| Table 2.2. Five dimensions of the teaching profile for primary. ....   | 41  |
| Table 2.3. The four phases in MTE.....   | 42  |
| Table 2.4. Teacher evaluation phases in 2015 & 2016 and 2017. ....   | 43  |
| Table 2.5. National statistics of 2015 & 2016 MTE results of primary education participants.....   | 44  |
| Table 2.6. Critical pre-reform and post-reform changes in the education system.....  | 56  |
| Table 4.1. Data collection instruments and sample: a summary. ....   | 119 |
| Table 4.2. Teachers' academic degree in the sample.....  | 133 |
| Table 4.3. MTE participants in 2015 & 2016. ....   | 135 |
| Table 4.4. Teachers and headteachers who participated in interviews. ....  | 138 |
| Table 4.5. Headteachers and policymakers who participated in interviews.....   | 138 |
| Table 4.6. A common theme relating to MTE strengths and corresponding codes. ....  | 144 |
| Table 4.7. Thematic areas and the number of themes reported in each one. ....  | 145 |
| Table 5.1. CPD-formats teachers undertook during 2014-2015.....  | 156 |
| Table 5.2. CPD-providers arranged by the State during 2014-2015.....   | 157 |
| Table 5.3. CPD-subjects and perceived impact on teachers' practice.....  | 159 |
| Table 5.4. CPD-subjects' impact on practice according to teaching experience in 2014-2015....  | 161 |
| Table 5.5. <i>Formal workplace CPD</i> options and self-perceived impact on teacher practice.....  | 163 |
| Table 5.6. Participation in <i>formal workplace CPD</i> and perceived impact considering teaching experience.....                            | 165 |
| Table 5.7. Informal CPD options and self-perceived impact on teacher practice. ....  | 168 |
| Table 5.8. Participation in <i>informal CPD</i> and perceived impact considering teaching experience. ....                                   | 169 |
| Table 5.9. The extent of participation and perceived pertinence for development of CPD delivery-modes according to years of experience. .... | 176 |
| Table 5.10. Good quality and low-quality CPD from a teachers' perspective.....   | 177 |
| Table 5.11. CPD evaluation modes. ....   | 178 |
| Table 6.1. Common and other themes regarding the strengths of MTE. ....  | 182 |
| Table 6.2. Feedback report sections; informativeness for detecting areas for improvement. ....   | 185 |
| Table 6.3. Common and other themes regarding the weaknesses of MTE. ....   | 189 |
| Table 6.4. The utility of the feedback report for CPD decision-making.....   | 195 |



|   |     |
|---|-----|
| Table 6.5. Common and other themes regarding the unintended consequences of MTE. ....                         | 200 |
| Table 7.1. CPD before 2015-MTE and the one needed after MTE. ....   | 213 |
| Table 7.2. Formal individual-oriented CPD-subjects needed in 2016-2017 according to teaching experience. .... | 215 |
| Table 7.3. CPD-subjects that interviewee headteachers and teachers undertook after MTE. ....                  | 222 |
| Table 7.4. Reasons not to participate in CPD after MTE. ....  | 228 |
| Table 9.1. A comparison of education policy reform 2013 vs 2019. ....   | 301 |

## Table of figures

|   |     |
|---|-----|
| Figure 2.1. Mexico's map with political divisions. ....                                     | 19  |
| Figure 3.1. An integrated model of school effectiveness. ....                               | 65  |
| Figure 3.2. The Dynamic Model of Educational Effectiveness. ....                            | 66  |
| Figure 3.3. Conceptual Framework: teacher quality and the factors that influence it. ....   | 69  |
| Figure 3.4. Conceptual framework: teacher quality and components. ....                      | 70  |
| Figure 3.5. How teacher professional development affects student achievement. ....          | 96  |
| Figure 3.6. The black boxes of teacher and student learning. ....                           | 97  |
| Figure 4.1. Dewey's model of experience. ....   | 114 |
| Figure 4.2. The methodology and methods of this study. ....                                 | 118 |
| Figure 4.3. Research design: sequential Mixed-Methods Research. ....                        | 118 |
| Figure 4.4. Gender and teaching experience distribution ( $n=367$ ). ....                   | 133 |
| Figure 4.5. MTE participants' gender and teaching experience distribution ( $n=131$ ). .... | 134 |
| Figure 4.6. Braun and Clarke TA approach. ....  | 142 |
| Figure 5.1. Number of participants in CPD in 2014-2015 by years of experience. ....         | 154 |

# 1 Introduction

Policy must be seen as a dialectic process in which all those affected by the policy will be involved in shaping its development. Policy development is therefore both a continuous and a contested process in which those with competing values and differential access to power seek to form and shape policy in their own interests (Bell & Stevenson, 2006, p. 2)

This doctoral research investigates a national Teacher Evaluation System (TES) in Mexico called the Mexican Teacher Evaluation (MTE), which was used for hiring, retention, and promotion of teachers in the state-funded education sector from 2014 to 2019 (DOF, 2019c; INEE, 2019). This is a timely, necessary, and original investigation into the teachers', headteachers', and policymakers' perspectives of MTE as a suitable means for teacher enhancement, and overall, quality education improvement. Like no other existing study, this piece of research addresses the strengths, weaknesses, and unintended consequences of MTE, as well as teacher participation in Continuing Professional Development (CPD) before and after the assessment.

The next section is a summary of the research problem. The rationales at an academic, national, and personal level follow. Subsequently, the aim and objectives of this inquiry, as well as the theoretical and conceptual frameworks chosen for this investigation, will be presented. A summary of the research design undertaken, and three research questions and sub-questions are posited. The Chapter concludes with a summary of the anticipated contribution to knowledge, policy, and practice, as well as an outline of the remaining Chapters of this thesis.

## 1.1 The research problem

The Mexican Federal Congress passed MTE in 2013 as part of a broader programme of education reform intended to improve the quality of education (Rivas, 2015; SEP, 2016b) and regain control

of the state-funded education affairs from the teachers' union (Arnaut, 2014; Cuevas, 2018; DOF, 2013a; Ornelas & Luna Hernández, 2016; Pérez Ruiz, 2014). However, the reform lacked consultation among teachers and other stakeholders in the education system (Cuevas Cajiga & Moreno Olivos, 2016; Ramírez & Torres, 2016). Therefore, there are critical knowledge gaps concerning the actual contribution of the new TES for teaching improvement from the perspective of those in everyday contact with education policies. This inquiry addresses some of those unexplored perspectives and provides new insights into matters of TES enactment and implementation.

In mid-2014, Newly Qualified Teachers (NQT)<sup>1</sup> and in-service teachers with temporary contracts sat MTE in order to enter the system (DOF, 2013a). Additionally, every year, starting from 2015, approximately 10% of the 1.5 million teachers working in state-funded schools would be required to demonstrate suitability to retain the position according to new standards of teaching. Evaluations for in-service teachers were mandatory at least every four years and incorporated high-stake consequences for the teachers' job positions, such as potential removal from teaching for underperformers already in-service, and dismissal for those who entered to the education system during the time of the new policy (DOF, 2013a). Provision of feedback for all MTE participants and mandatory CPD for underperformers in MTE also followed (*ibid*).

Arguably, MTE was coupled with a government perception of a deficit on the part of teachers' knowledge, skills, and dispositions that the evaluation was intended to identify and correct via CPD (INEE, 2016c; SEP, n.d.-b, 2017d). Nevertheless, teacher evaluations for quality education

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<sup>1</sup> In Mexico, there are no teacher certification processes such as a PGCE in the UK context because graduates from the teacher training colleges are considered fully qualified to teach upon graduation from a bachelor's degree programme (see more in section 2.2.3). In this thesis, NQT will be used to refer to the group of teachers who are new to the education system.

improvement are not new to Mexican teachers. Since the early 1990s, teacher assessments have been used to make decisions on salary increments, to regulate entry into the state-funded education sector, and for formative appraisals. Similarly, there is a long history of state-funded teacher CPD before the education reform in 2013 that included collective forms of teacher development as well as individual-oriented CPD. Although the focus of this PhD research is on state-funded (*formal*) CPD, the study also provides new knowledge on the *informal* CPD teachers accessed before and after MTE.

Following the introduction of MTE and onwards, teacher evaluations became the only legal procedure for working in the state-funded education system, in contrast with the former method through the teachers' union, which was entitled to assign teachers via agreements with the secretariat of education (Estrada, 2015). Teacher evaluations of in-service personnel became mandatory and high-stake consequences were attached, as previously mentioned. Regarding state-funded CPD<sup>2</sup>, the education reform of 2013 expanded collective forms of teacher development from five to thirteen days per year (DOF, 2017b; SEP, 2013), and reframed professional development directed to individual teachers via an array of public-private providers (SEP, 2013, 2017b). Furthermore, it made participation in CPD compulsory for underperformers in MTE (DOF, 2013a), and instructed CPD providers to require teachers to develop school-based small research projects as part of the training (SEP, 2017b).

Despite these changes aimed at improving quality education, policy and practice do not always work in tandem (Bell & Stevenson, 2006; Murray & Swennen, 2019; Reynolds et al., 2014), and

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<sup>2</sup> In this thesis, state-funded CPD or training managed by the state is named *formal CPD* and distinguishes between *collective* (staff development), and *individual-oriented* CPD.

there is vast local and international experience pointing to the need of teachers' and other stakeholders' insights into matters of education policymaking that require targeted research (Flores, 2011; Ramírez & Torres, 2016; Tornero & Taut, 2010; Tuytens & Devos, 2009), mainly in the context of the recently introduced Mexican Teacher Evaluation.

## 1.2 Academic rationale

In the last decades, access to education and the amount of time people spend in schools have steadily increased in most countries (Roser & Ortiz-Ospina, 2019), this not only contributes to fulfilling a human right, but also to the enhancement of the overall preparation of people to undertake unforeseeable challenges in their future lives. Nevertheless, modern approaches to economic theory argue that the number of years of education is a less precise predictor of the growth of Gross Domestic Product (GDP) than, for instance, measures of academic achievement, such as PISA tests (Hanushek & Woessmann, 2010; Hanushek, Ruhose, & Woessmann, 2016). Therefore, developing and developed economies have undertaken actions to improve the quality of their students' outcomes, including attainment on various subjects, creativity, and emotional development, which are all often used as a proxy for quality education (UNESCO, 2000, 2004b).

In this regard, the perspective of international corporations, such as the Organisation for Economic Co-operation and Development (OECD), have actively proposed that *teachers matter* when addressing the issues in quality education, as one influential report posits (OECD, 2005). Likewise, research shows that teachers are one of the most critical factors in students' achievements (Barber & Mourshed, 2007; Muijs et al., 2014; Reynolds, Chapman, Kelly, Muijs, & Sammons, 2012). Therefore, Barber and Mourshed (2007, p. 13) have argued 'the only way to improve outcomes is to improve instruction'. In other words, it is still believed that quality education issues can be tackled if teachers' knowledge and general capacities are monitored and supported, and the less

capable are removed (Callahan & Sadeghi, 2015; Marzano, 2012; Popham, 1988). This is essentially the strategy proposed by the MTE policy and the matter of critical review of this research.

Despite the influence of international testing, there are substantial debates in the literature regarding the use of students' results in international comparative assessments for the prediction of economic growth as a means to define education quality and to introduce reforms (Breakspear, 2012; Meyer, 2014; Moreno, 2019a; Schmelkes, 2018; Volante, 2017). It is therefore essential that when reviewing the practical implications of the most recent policy changes in Mexico, the context is sufficiently considered and put into perspective with the goals of the reform. Similarly, there are contrasting viewpoints about teacher accountability as the only means for attaining ambitious learning and economic outcomes (Hargreaves, 2012; Sahlberg, 2006). Although traditionally, schools have been screened via standards, frameworks, and school inspections (Ehren, Jones, & Perryman, 2006; Martinez, Taut, & Schaaf, 2016; Martínez Rizo, 2016; Ofsted, 2019), TES are increasingly considered appropriate methods to improve the indicators of quality education.

Complementing this, a mounting body of literature, mainly from Educational Effectiveness Research (EER), indicates that the effects of teachers and schools on students' development, and consequently, on quality education, depend on several factors. These include the professional development available to teachers, the students' backgrounds, and the broader context where learning happens which is beyond the control of teachers or schools (Creemers & Kyriakides, 2006; Mortimore et al., 1994; Muijs, Kelly, Sammons, Reynolds, & Chapman, 2011; Reynolds et al., 2014; Sammons, 1999a; Scheerens, Glas, & Thomas, 2003).

To know more about teachers' formal appraisal and other professional-related issues, a growing number of economies have joined the triennial OECD's Teaching and Learning International Survey

(TALIS)<sup>3</sup>. The OECD's survey aims 'to provide robust international indicators and policy-relevant analysis on teachers and teaching in a timely and cost-effective manner' (OECD, 2014, p. 27). TALIS has started to collect data from primary teachers; however, its emphasis has been, and continues to be, on secondary education. Arguably, the professional needs of primary teachers (generalists) are different from those of their counterparts in secondary education (subject teachers). In TALIS, formal teacher appraisals are defined as a review of the teacher's practice by an authority or colleague (OECD, 2014), however, since the research problem examined in this thesis relates to a national teacher evaluation which includes other means for teacher assessment, adapting the original TALIS questionnaire might be needed to explore teachers' perspectives in the context of MTE.

Adaptations of TALIS questionnaires have been used in a local context to tackle knowledge gaps concerning teacher participation in CPD (Elizondo & Gallardo, 2017). Nevertheless, no research has gathered information on the professional development available to Mexican teachers prior to MTE, and the subsequent suitability of further CPD to tackle teachers' needs as identified via the TES or as self-perceived by teachers. This research addresses some of those knowledge gaps.

Opposing views between those who argue that teaching requires a set of generic assets, and others that contend for a teacher career-stages-conscious approach (Creemers & Kyriakides, 2006; Danielson, 2007b; Education Services Australia, 2012; Johnston, 2015), deserve further analysis in the context of MTE as well. These are often political decisions that dispense with the perspectives of teachers and other stakeholders in the education system (Flores, 2011; Ramírez & Torres, 2016;

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<sup>3</sup> A total of 24 countries participated in TALIS 2008. In TALIS 2013, ten more economies undertook the survey. The international survey seeks statistical representativeness; the 'target sample size: 200 schools per country; 20 teachers and 1 school leader in each school' (OECD, 2014, p. 27). Mexico has been participating since 2008.

Tornero & Taut, 2010; Tuytens & Devos, 2009) despite their close contact with the effects of education policies in schools and classrooms (Goe, Holdheide, & Miller, 2014; Santiago & Benavides, 2009). With this in mind, the next section tackles the rationales at a national level underpinning this research.

### 1.3 The national rationale - Mexico

The education reform of 2013, which includes MTE, originated from a political agreement at a federal congress level. Lack of consultation with teachers or other actors about the content and implications of the policy generated resistance to the evaluation (Ramírez & Torres, 2016), physical confrontation (The New York Times, 2016), and some casualties (Echávarri & Peraza, 2017; Urrutia de la Torre, 2015). At a national level, this underpinning rationale is essential to gain knowledge about the implications of MTE from the perspective of those directly experiencing the new TES. This research is also inspired by previous calls for further research on matters concerning the practical implications of MTE for the teachers' practice (Salmeron, 2015, cited in Cordero & González, 2016), in particular, the review of 'a whole MTE cycle: evaluation, appointment, training and re-evaluation' (Cordero & González, 2016, p. 17).

Previous quantitative and qualitative studies on MTE led by Mexico's National Institute for Educational Evaluation (INEE), which were published after the beginning of this study, focused on MTE participants' satisfaction with the evaluation for improvement (INEE, 2016b, 2016c). The literature generated by the INEE presented valuable data about the difficulties that teachers encountered in the assessments (Beltrán, 2016; Gil, 2013; Rodríguez, 2013). However, these previous studies did not address the teachers' former training opportunities. Knowledge of teacher



CPD before 2015-MTE<sup>4</sup> is essential to understand how teacher training after the evaluation may tackle professional development needs that have not been fully addressed in the past. This research addresses that gap.

The INEE research was unable to gather evidence regarding the most commonly taken teacher development options, or the most in need after 2015-MTE, due to a shortage of CPD at that time (Cordero, Jiménez, Navarro, & Vázquez, 2017). In fact, up until April 2016, most teachers were not aware of any options available to them (INEE, 2016c). Furthermore, the INEE noted that the research participants provided little insight into how MTE could contribute to their professional development through one of its formative components, namely the feedback report. This study tackles those knowledge gaps by exploring the informativeness of the feedback report and its relationship with available teacher CPD after the teacher evaluation.

In the INEE studies, teachers classified as underperformers expressed that their socio-economic and geographic settings, as well as their actual classroom practice, were not considered in the grading of the evaluation. This is important to investigate in order to understand what makes the TES (in)valid from the teachers' perspectives. Overall, the INEE's report stated that the teachers were not against MTE and that their claims concentrated on the technical and bureaucratic issues around the evaluation (*ibid*). Therefore, this research focused more on exploring MTE participants' perspectives on professional development opportunities offered to them based on the outcomes of the assessment.

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<sup>4</sup> In this thesis, before 2015-MTE will refer to the academic year 2014-2015. The first major national teacher evaluation took place in 2015, and included evaluations for NQT, promotion and mandatory for in-service teachers.

Another key study on MTE, which arose at the beginning of this PhD research, was commissioned by the Regional Bureau of Education for Latin America and the Caribbean (OREALC/UNESCO, 2016). The study revealed a series of technical pitfalls of the evaluation, mainly concerning a written exam. This report reviewed the theoretical foundations of MTE, such as the Mexican standards for teaching and their connection with the evaluation instruments. The UNESCO report, as well as those carried out by the INEE, revealed useful data on the operative pitfalls of MTE; however, mixed findings were found on the value of MTE for improving teaching. For instance, such research was unable to investigate the relationship between MTE outputs, i.e. the feedback report, and the availability and impact of teacher CPD on the practice in further detail. Further insight into these seminal studies concerning MTE is provided in the context Chapter.

Therefore, this research investigates Mexican teachers, headteachers, and like no other study on the topic, policymakers' perspectives from three institutions directly concerned with the implementation of MTE, i.e. the Secretary of Education (SEP), the National Institute of Educational Evaluation (INEE), and the main teachers' union (SNTE). These views are examined to elaborate on the strengths, weaknesses, and unintended consequences of MTE in order to compare teachers' professional development before and after MTE<sup>5</sup>, as well as study how this teacher evaluation can inform subsequent CPD. Additionally, evidence concerning the relationship between teacher participation in CPD and years of experience will be explored.

This issue is seldom covered in local research, however, it is amply discussed in the international research regarding teacher quality and improvement (Day & Sachs, 2004; Mitchell, 2013; Sandoval-

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<sup>5</sup> In this thesis, **after MTE** will refer to the **academic year 2016-2017**, and alludes to data regarding teacher CPD during that academic year from participants who sat the 2015-MTE or 2016-MTE.

Hernandez, Jaschinski, Fraser, & Ikoma, 2015; Thomas, Zhang, & Jiang, 2018). This research provides fundamental and timely knowledge on the topic that presents local/national policymakers, practitioners, and researchers with a baseline for further exploration of TES in Mexico and other latitudes. In 2019, following the recent appointment of president Andres Manuel López Obrador from the left-wing MORENA political party, the education reform of 2013 was cancelled. Still, teacher evaluations will continue (DOF, 2019c), which means that this research remains current and relevant to further policy developments on teacher quality issues. Significant changes to TES in Mexico following this recent reform will be explained towards the end of this thesis.

#### 1.4 The rationale on a personal level

Various motivations underpin the researcher's interest in this project. First, his experience as a primary school teacher in Colima, Mexico, from 2008 to 2014 enabled him to develop an understanding of the expectations and challenges in the Mexican state-funded education system. Therefore, when MTE was introduced for quality education improvement, his experiences underlined that the new policy neglected the material constraints of the communities and the students he worked with, most of them from deprived neighbourhoods in the periphery of the city. Similarly, the new mandate seemed not to adequately consider prior deficiencies in the teachers' training and overall preparation for teaching. This initial awareness resulted in a series of questions about the origins of education policy; thus the researcher started to explore the issue via a Master's dissertation where the theoretical foundations of the teaching standards used for MTE were untangled (Cortez, 2015). Such inquiry revealed potentially borrowing policies from the United States of America's (USA) and Chile's policies on teacher assessment, mainly, the Framework for Teaching of Charlotte Danielson (2007a), and the Good Teaching Framework from Chile (MINEDUC, 2008). The following step was to explore how MTE would contribute to improving teacher practice,

given its strong focus on the individual teacher as an essential component for quality education enhancement.

For the researcher, it remained unknown how the new TES would supersede the pitfalls of previous initiatives concerned with quality education improvement. This is because different programmes on teacher CPD and assessments were implemented before the reform of 2013. However, the discourse underpinning the need for change suggested that teachers were not good enough to do the job; therefore, accountability and further training were essential for improvement. Another rationale which prompted his interest in the research topic was the contradictory narrative used by the teachers' union that was for the TES and not for the defence of the teachers' rights. Therefore, it was essential to contrast teachers', headteachers', and policymakers' views about the developmental, or otherwise threatening, stance of the teacher evaluation.

## 1.5 Aim and objectives

This research has the following aim and objectives:

**Aim:** To investigate Mexican teachers', headteachers', and policymakers' perceptions of the strengths, weaknesses, and unintended consequences of MTE. Also, to compare CPD before and after MTE and examine whether the teacher evaluation and feedback report can inform subsequent CPD routes to enhance teachers' knowledge and pedagogical skills for quality education improvement.

**Objectives:**

- To review the international academic literature on the relationship between quality education, teacher evaluation, and CPD.

- To examine and document the nature of the specific research and policy context in Mexico relating to quality education, teacher evaluation, and CPD.
- To carry out empirical, sequential mixed method research (MMR) on teachers', headteachers', and policymakers' perspectives on MTE and CPD involving a survey and semi-structured interviews.
- To explore the implications of the study's findings for policy and practice in Mexico and similar country contexts, the existing theoretical literature, and further research.

## 1.6 Theoretical and conceptual frameworks: an overview

The general concern of this research is the concept of quality education as it is the rationale often used to justify the enactment of TES, and the main change entailed in the education reform of 2013 (see section 2.6.2). This construct is problematised in light of the human rights, and human capital approaches, and the contribution of Educational Effectiveness Research (EER) to provide a background to the different aspects of TES and CPD that are subsequently reviewed. After this, models of teacher quality are addressed as essential foundations of TES. A review of standards and frameworks for teaching also contribute to this inquiry. Another focal area of analysis relates to the theory regarding teacher CPD for practice improvement. In this part, models of teacher and student learning are analysed to provide further methodological support towards the research on teachers' perspectives regarding matters of professional learning opportunities. Theoretical and conceptual frameworks are intended to contrast research findings and advance knowledge arising from the MTE experience.

## 1.7 Research design and Research Questions

This exploratory enquiry was conducted via sequential mixed methods research (MMR). That is, quantitative and qualitative data were collected chronologically and integrated throughout the

analysis and discussion stages to address the research questions (Creswell, 2014; Johnson & Onwuegbuzie, 2004). Similar studies have found limitations when conducted using mono-method research (see, for example, Taut, Santelices, Araya, & Manzi, 2011; Tuytens & Devos, 2009), mainly because the breadth and depth of data collected tend to be a trade-off when deciding between large-scale survey studies and in-depth qualitative research. Therefore, within the scope of PhD research, using mixed methods provides a balanced and more comprehensive approach to exploring the research problems from various angles.

Pragmatism, as a philosophical framework, was chosen given the outcome-oriented aim of the research. Using pragmatism facilitated inquiring into practical ways of change and improvement concerning, in this case, a teacher evaluation policy (Goldkuhl, 2012). This choice allowed further exploration of a wide range of the participants' views and provided detailed accounts on the matter using quantitative and qualitative methods, given the pluralistic nature of the approach to research (Creswell, 2014; Dewey, 1908; Johnson & Onwuegbuzie, 2004; Mertens, 2016; Peirce, 1878).

Methodologically, the TALIS teacher-questionnaire (OECD, 2014) guided the initial outlines of a teacher survey. Subsequently, the instrument was piloted with primary teachers in Mexico and adapted accordingly. Furthermore, drawing on existing research about TES and CPD, semi-structured interview protocols were designed and refined during pilot trials (Harris, Day, Goodall, Lindsay, & Muijs, 2006; INEE, 2016c). The empirical quantitative data of this research was gathered via convenience sampling (Etikan, 2016) from primary teachers and headteachers with four years of professional experience or more at the time of data collection (total sample  $n=367$ ). A third of them were evaluated in MTE-2015 or MTE-2016 ( $n=131$ ). Also, eight teachers, two headteachers, and three policymakers were invited for an interview using purposive sampling (*ibid*). These

decisions were appropriate to achieve a balanced degree of scope and richness in the data collected.

Quantitative data were analysed using SPSS software. Descriptive and some inferential statistics were used to explore and provide an interpretation of key patterns in the data, but no claims of causality were made given the study was primarily exploratory (Banerjee & Chaudhury, 2010; Field, 2009). Qualitative data were analysed using NVivo software following a thematic analysis approach (Braun & Clarke, 2006). The findings were integrated and reported in three Chapters in line with the following research questions and sub-questions.

RQ1: What were the opportunities (formal and informal) for CPD that teachers had before 2015-MTE?

RQ1a: What do teachers say about the impact of CPD before 2015-MTE on their practice, its pertinence and quality?

RQ1b: Did the extent of participation and perceptions of how CPD impacts on their practice vary according to teachers' experience?

RQ2: What are the strengths, weaknesses, and unintended consequences of 2015 & 2016 MTE in informing further CPD decisions and improving teacher performance?

RQ3: What CPD options did MTE participants need and take after the evaluation, particularly in 2016-2017?

RQ3a: Did perceptions of CPD needs after MTE vary according to teaching experience?

RQ3b: How does CPD in 2016-2017 compare to CPD before 2015-MTE regarding impact, pertinence, and quality?

This investigation seeks to present an original contribution to knowledge, policy, and practice in various respects. Unlike related studies that have been published since this inquiry commenced (Cordero et al., 2017; Cuevas, 2018; INEE, 2016b, 2016c; OREALC/UNESCO, 2016), this research contrasts under-researched perspectives of teachers with those of headteachers and high-ranking policymakers regarding MTE. This approach provides new insights into MTE and its implications for quality education improvement. The methodological contribution of this research involves the use of an adapted version of TALIS questionnaires to explore the extent of participation in CPD in the wake of teacher assessments with high-stake consequences. Furthermore, unlike existing records of TALIS-like surveys in the local context (Elizondo & Gallardo, 2017), this research examines teachers' experience *vis-à-vis* perceptions of the impact of CPD on the practice. Such knowledge is essential for decision-making regarding future teacher training provision.

This research proposes various ways forward on TES concerned with teacher practice improvement, as well as areas for further inquiry. In sum, within the scope of PhD research, this exploratory study provides new evidence concerning teacher CPD in Mexico that policymakers can use to revise professional development on offer, as well as an assessment of the strengths, weaknesses, and unintended consequences of MTE.

## 1.8 The organisation of the thesis

The remainder of this thesis is organised as follows:

Chapter 2 provides the research context and is organised into three parts. The first part presents a summary of relevant information concerning the Mexican education system. The other two parts give an overview of the pre-2013 reform and post-2013 reform affairs regarding state-funded education in Mexico, TES policy, and CPD programmes.



Chapter 3 is a review of the literature, which includes the theoretical and empirical research relevant to this study, including key literature on quality education, teacher evaluation systems, approaches to teacher quality, and teacher continuing professional development. Based on the research aim and objectives and the literature supporting this research, at the end of the Chapter, three research questions and sub-questions will be reiterated to guide the present study.

Chapter 4 is concerned with the methodology and methods chosen for this research. The Chapter begins with the philosophical approach of the research, supported by relevant literature. After this, the research design is explained in detail, including how and where the quantitative and qualitative findings are integrated. Next, the rationales for data collection methods, followed by thorough explanations concerning instrument development, data collection procedures, and analyses. A dedicated section regarding the quality of data, analysis, and findings justifies the credibility of this research. The concluding parts of the Chapter embrace a series of ethical considerations and methodological limitations of this research.

Chapter 5 presents the findings on the first research question, which is concerned with the CPD opportunities teachers had before 2015-MTE, particularly in the academic year 2014-2015. Findings Chapters describe the data and present tentative explanations that are further discussed in Chapter eight.

Chapter 6 is concerned with the findings on the second research question, which addresses the strengths, weaknesses, and unintended consequences of MTE, as well as the usefulness of the feedback report for CPD decision-making.

Chapter 7 presents the results on the third research question, which was aimed at gathering data about CPD after MTE, for the academic year 2016-2017.

Chapter 8 is a discussion with the purpose of contrasting the findings with the current academic information on the research topic. The strengths, weaknesses, and unintended consequences of MTE are debated. Moreover, CPD before and after MTE are discussed in line with the research aim of this study.

Finally, Chapter 9 is a series of conclusions and recommendations for policy, practice, and future research.

## 2 Research context

### 2.1 Introduction

This Chapter presents an overview of Mexico and its education system, including relevant data on the state-funded education sector and the teacher workforce. After this opening section, two general parts address the circumstances prevailing before and after the education reform of 2013. The legal right to education in Mexico is reviewed with regard to the pre-reform matters. A brief examination of Initial Teacher Education (ITE) and some documented issues on education quality and contextual challenges follow. A summary of the pre-reform policy on teacher performance evaluation is presented, and this section concludes with an evaluation of teacher CPD before the reform of 2013.

The post-reform snapshot includes a brief review of the education reform of 2013; the legal right to education and the emergence of MTE. After a thorough study of the new TES, several aspects concerned with state-provided CPD following the reform will be reviewed. The Chapter concludes with a comparative chart showing the main differences between pre- and post-reform in the education system.

### 2.2 An overview of the Mexican education system

Mexico is a 2 million square kilometres territory divided into 32 federal states (see **Figure 2.1**). In this country, the right to an education is legally binding, and it is funded through taxes and managed by the central federal authority through the Secretariat of Public Education (SEP in Spanish). Mexico's education system is organised as follows: basic education (pre-school (3-6 year-olds), primary (6-12 year-olds) and lower-secondary (12-15 year-olds)); upper-secondary (15-18-



Of the total primary schools in the state-funded education sector, '43.2% are multi-grade type schools' (INEE, 2018). At these schools, 'one, two or three teachers oversee two or more school grades at the same time' (INEE, 2015c, p. 315) and this typically occurs in the same classroom. Teachers working in multi-grade schools often deal with material constraints as well as the challenge presented by working with students of different ages and levels of academic progress (Inclán, 2016; Ruiz, 2018). Indigenous education, which represents 2% of the national provision at primary level, is mainly provided via multi-grade schools (*ibid*). In Mexico, Spanish is the most widely spoken language, but there are 70 additional indigenous languages spoken by 7.4 million people across the country. Indigenous students usually receive education in their language; however, 15% of indigenous schools have a teacher who does not speak the language of the pupils (INEE, 2017a).

### 2.2.1 Teachers and teacher organisations

The federal authority mainly pays teachers' salaries; however, there are also teachers employed by the States who may receive different wages and other benefits compared with those who work for the central, federal government (Barrera & Myers, 2011). Most Mexican teachers working in state-funded schools are unionised under The National Union of Education Workers (SNTE in Spanish). The SNTE represents 1.5 million teachers, the number of teachers working in basic education during the academic year 2016-2017 (INEE, 2018). A third of them work at the primary level (CEMABE-INEGI, 2014).

The median teachers' age at the primary level is 39 years-old, with female teachers making up 67% of the total (INEE, 2015b, p. 31). Approximately 74% of the teachers in primary education hold a permanent contract (Backhoff & Pérez-Morán, 2015, p. 26); and 64% of them are full-time teachers (*ibid*, p. 25). The SNTE was created in 1943, but in 1979, the so-called National Coordinator of

Education Workers (CNTE) emerged, made up of dissident members of the main teachers' union to challenge corporate malpractices of the SNTE (CNTE-blog, 2012; López, 2013; Sánchez & Corte, 2015). The CNTE represents more than one hundred thousand teachers (Excelsior, n.d.) from the poorest states of Mexico. The organisation's main agenda challenges neoliberal policies and other government initiatives that give higher regard to the technocratic, but not to the humanist, currents in education (de Ibarrola, 2018).

### *2.2.2 The right to education before the reform of 2013*

The people's right to primary education has been present in article 3 of the Mexican Constitution since the early 20<sup>th</sup> century (Congreso Constituyente, 1917), and has undergone eight amendments before the reform of 2013. The 2012 modification was as follows:

Every person has the right to receive an education. The State – Federation, States, the Federal District and Municipalities –, will provide pre-school education, primary, lower and upper-secondary education. The pre-school, primary and lower-secondary education integrates the basic education; this and upper-secondary education are mandatory (DOF, 2012).

Arguably, until 2012, the main concern of article 3 of the Constitution was access to education. To secure the education system's needs of schoolteachers, the State has been a prominent provider of teacher training programmes through normal schools which have endured various modifications over time as is presented next.

### *2.2.3 Initial Teacher Education before the reform*

Initial Teacher Education in Mexico (ITE) has a long tradition. Following the Independence of the country from Spain in 1822, the first 'normal schools, meaning, a place where teaching is normed' (IEESA, 2012, p. 2) were established. Here student teachers learned how to lead the instruction

through 'a course of four to six months in duration' (*ibid*, p.3). Subsequently, during the late 19<sup>th</sup> century, and after the Mexican Revolution of 1910, more normal schools, particularly those targeting rural areas emerged (*ibid*). ITE was traditionally provided via a three-year programme. Given the high rates of illiteracy in the country, during the late 1940s, the provision at primary level expanded radically, and graduates from existing normal schools as well as individuals without training joined the workforce (*ibid*). Since 1969, ITE in Mexico takes four years to complete, and, in 1979, the National Pedagogical University of Mexico was created to standardise those without a degree level qualification (*ibid*). Nevertheless, before an education reform in 1984, student-teachers completed only lower-secondary education before entering a normal school. After this reform, the aspirants to an ITE institution were required to complete an upper-secondary programme before enrolment (*ibid*).

The curriculum of normal schools was changed in 1997 to focus on teaching, reducing the number of academic units, research content and theory (IEESA, 2012). In 2012, the curriculum was modified again, and the pathway for primary education was organised in five learning areas as follows: Psycho-pedagogy with 16 units; teaching and learning preparation, 20 units; additional language (English) and ICT, 7 units; four optional units; and professional practice with 7 units. Although the introduction to classroom practice starts from the first semester, this is increased further in the last semester to 20 hrs per week for 16 weeks. The drafting of a short dissertation leads to a professional title (SEP, n.d.-a). In section 2.6.1, ITE in normal schools will be revisited with regard to the changes arising from the education reform of 2013.

### **2.2.3.1 Teacher licencing: entry to the education system**

There are no certification processes after graduation from an ITE institution. However, the education authority and the teachers' union typically negotiated on teacher hiring via the so-called

joint committees<sup>6</sup>. In 2008 and before MTE, both parties agreed on an entry examination for newcomers and in-service teachers who lacked a permanent post but were interested in working in the state-funded education sector (Cordero & Luna, 2014; SEP-SNTE, 2008) see section 2.4.2. Such a standardised exam, which ‘was the only instrument used across the country to select the best candidates to a teaching post’ (Luna, Cordero, López Gorosave, & Castro, 2012, p. 237) was designed and implemented by an external examination institute (see Appendix 1). Luna et al. (2012) documented that the exam included 80 multi-choice items and covered the following areas: I) curricular content knowledge; II) specific intellectual skills; III) didactic competence; and IV) the norms, management and teacher’s ethics.

According to Barrera and Myers (2011), although the entry exam was perceived as a suitable approach to hiring teachers via a meritocratic method, the test lacked reliable references of expected performance (*ibid*). Moreover, there were no clear rules about the minimum score needed to obtain a position in the education system, and the vacancies were filled according to supply and demand in each state. In other words, if in a given year there were sufficient vacancies to offer a place even to those who failed in more than half of the exam items, they were offered a position (*ibid*). Furthermore, the teachers’ union continued to appoint teachers, disregarding the official evaluation, suggesting widespread malpractice and inconsistency in the hiring process (*ibid*). The intervention of the union in the allocation students to ITE without an entry examination,

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<sup>6</sup> The co-participation of the education authority and the union in matters of teacher hiring is known as the joint committee, and entitled 50% of the vacancies in the education system to the union (Barrera & Myers, 2011; Estrada, 2015). The teachers’ union and the political party in the power for more than seventy years – Revolutionary Institutional Party (PRI) – ‘set corporate agreements which allowed the government to maintain the control of a good proportion of the teacher workforce in exchange for rewards, such as the political promotion of the union’s leaders’ (Pérez Ruiz, 2014, p. 116). This relationship continued through the two presidential periods of the opposition National Action Party (PAN), from 2000 to 2012. This situation helps to understand why, before the reform of 2013, the union effortlessly promoted the automatic entrance of graduates from normal schools and other related degree credentials to the education service (Estrada, 2015; Pérez Ruiz, 2014).



as well as in hiring, fostered the politicisation of pre-service teachers (Civera, 2013). This way, the union secures the adherence of NQT once in the service.

Other unlawful practices to obtain a post that were tolerated by the authority and endorsed by the union included inheritance; selling and buying places, and bonds of friendship with the teacher organisation (INEE, 2017b; Torres, 2019). In sum, before MTE, the joint committees owned the power regarding teacher hiring, and corrupt practices were prevalent, such as selling and buying teaching posts. From 2008 to 2013, an entrance examination was agreed to make this process more meritocratic. However, the exam lacked references of good teacher performance, and the results of the test were not observed. That is, the teachers' union continued to interfere in the appointment of teachers to available positions.

Given the proportion of teachers who obtained a post via the pre-1984 policy, the distribution of in-service primary teachers' credentials is as shown in **Table 2.1**.

**Table 2.1. National statistics of primary education teachers' degree-level qualifications.**

| Total (per cent) | Upper-secondary | Normal or bachelor's incomplete | Normal pre-school complete | Normal primary complete | A degree from the National Pedagogical University | Bachelor's degree complete | Postgraduate degree |
|------------------|-----------------|---------------------------------|----------------------------|-------------------------|---|----------------------------|---------------------|
| 492,042 (100.0)  | 14,028 (2.9)    | 1,363 (0.3)                     | 2988 (0.6)                 | 81,817 (16.6)           | 43,264 (8.8)                                      | 249,228 (50.7)             | 48,274 (9.8)        |

Source: (INEE, 2015b, p. 41). Percentages in parentheses. Percentages do not sum up to 100% due to missing data.

### 2.3 Issues on education quality before the reform

In 2006, the National Examination of School Achievement (ENLACE in Spanish), the first student national examination was implemented, and the results reported per individual student and school annually (SEP, 2014a). In primary education, the test targeted years 3<sup>rd</sup> to 6<sup>th</sup>. Although ENLACE was not meant to link students with their teachers, school league tables were published for the

staff to compare and make decisions about their teaching upon these reports. There is evidence that teaching to the test and cheating<sup>7</sup> occurred in ENLACE (Pérez Ruiz, 2014; Santiago, McGregor, Nusche, Ravela, & Toledo, 2012); thus, the results showed a trend of improvement in areas such as language and maths that contradicted other international surveys, for instance, SERCE and TERCE, organised by the UNESCO in 2006 and 2013 (Rivas, 2015). Furthermore, the lower performance of Mexico in comparative studies has been consistent since the beginning of its participation in the Programme for International Student Assessment (PISA) (*ibid*). For instance, in 2015, Mexico obtained the lowest position out of 34 OECD members (OECD, 2016); and again in 2018, at that point, out of 36 country members (OECD, 2018).

In the two examples given, one concerning a national student assessment, and the other, an international exam, Mexico seemed to perform persistently lower than expected (OECD, 2012, 2016). This situation was actively used to justify the reform of 2013, and MTE (Nava Amaya & Beltrán, 2014). For instance, the former president of the INEE stressed that ‘the results of the students show the areas where teachers have to reinforce their professional development’ (Schmelkes, 2018, p. 17). An intense campaign against teachers would follow; De Ibarrola (2018, p. 16) explains, ‘a clear example is the movie “De Panzazo” [A Barely Passing Grade], a documentary made by Mexicanos Primero (similar to the American “Waiting for Superman”) that was shown in movie theaters all across the country in 2012’. A similar situation occurred in Korea with the media branding issues of education quality a ‘school collapse’ or ‘classroom collapse’ (Yoo, 2019, p. 94). Nevertheless, various academics contested these views arguing the essential role of contextual

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<sup>7</sup> Although cheating might help to explain the discrepancy between national and international student assessments, according to De Hoyos, Garcia Moreno, and Patrinos (2015, p. 15) ‘ENLACE uses two algorithms to detect cheating and results are invalidated when it happens’.

constraints that might also be relevant to understanding issues on quality education (Barrera & Myers, 2011; Gil, 2016). The next section explores some of these aspects.

### *2.3.1 Contextual issues related to education quality*

There are critical societal limitations to the improvement of learning outcomes in Mexico, such as more than 43% of the population living in poverty (World Bank, 2019). Furthermore, more than 30 million of those 15 years and older individuals who did not have access to formal education or did not complete it at least at a basic level (Gil, 2018a; INEE, 2017a). Existing research in England using the Avon Longitudinal Study of Parents and Children (ALSPAC) concluded that parental income and multiple child outcomes, e.g. cognitive, non-cognitive and health-related are positively associated (Washbrook, Gregg, & Propper, 2014). These findings resonate with local research on the socio-economic factors related to students' results in a national examination for entry to higher education (Hernández, Márquez, & Palomar, 2006). Regarding people from indigenous backgrounds, '9 out of 10 indigenous students in Mexico live in localities with high or very high indicators of marginalisation' (INEE, 2018, p. 16), and these populations report '2.5 fewer years in formal education than the rest of the population in Mexico' (*ibid*, p. 19). These data show important factors affecting the academic attainment of the less affluent and those from different ethnic backgrounds that negatively impact the academic achievement in comparative assessments. Still, most importantly, they illustrate serious issues related to the inequity of the Mexican education system and student outcomes.

Furthermore, a sizable proportion of schools have to deal with a lack of access to running water, electricity, toilets and the Internet to differing extents (CEMABE-INEGI, 2014). In addition to this, issues of education quality in Mexico have been a prominent concern that can be traced back to the early 1990s, as will be discussed next.

## 2.4 Previous teacher evaluation programmes

### 2.4.1 *Carrera Magisterial: a teacher professional career ladder*

To improve the quality of education, the secretariat of education and the teachers' union signed an agreement in 1992. Part of the deal included the creation of a teacher career development programme namely Carrera Magisterial (Gluyas & Gonzalez, 2014), and the decentralisation of the responsibilities on teacher development from the federal government to the states (UNESCO/UDP, 2009). The programme targeted basic education teachers working in state-funded schools who voluntarily competed for salary improvements via a points-based evaluation in five categories (A, B, C, D, E) (Cordero, Luna, & Patiño, 2013; Santibañez & Martínez, 2010). Taking a primary teacher contract as a baseline — 25 hours per week contract — the programme represented increments to the salary of '36% more in level A, 70% in level B, and up to 158% in level E' (INEE, 2015b, p. 64), but the rewards depended on annual budgets; therefore, a limited number of increments were granted every year. The criteria for the teachers to progress in the five-level salary ladder included: teachers' years of experience, their academic degree, participation in training, such as workshops and diplomas, and a standardised exam (CREFAL, 2017).

The last rounds of this programme considered the unadjusted students' raw results in national exams, e.g. ENLACE, as part of the individual teacher scores (Cordero & González, 2016; Cordero et al., 2013). Nevertheless, empirical research found that the students of teachers rewarded by the programme did not perform significantly better than students of teachers who did not participate (Escárcega & Villarreal, 2007; Santibañez & Martínez, 2010; Santibañez et al., 2007). Criticism about the use of ENLACE to make decisions on teachers' salaries included the lack of consideration of socio-economic and cultural factors of the students that might influence their academic results (Barrera & Myers, 2011). Similarly, the risk that ENLACE became a learning reference, and

therefore, teaching to the test and cheating were contested (*ibid*). Additionally, several academics maintained that far from improving the salaries of teachers as a community, the Carrera Magisterial, contributed to the division of teachers who benefited from the programme, and those who did not (Cerón & Corte Cruz, 2006; Escárcega & Villarreal, 2007). The programme was terminated during the 2012-2018 federal administration and substituted by a rewards programme based on the teachers' performance in MTE<sup>8</sup>.

#### 2.4.2 *The entrance examination*

As presented in section 2.2.3.1, teacher evaluations for entering the service and obtaining a post were introduced in 2008 (SEP-SNTE, 2008). A small-scale study with data from telesecundaria teachers<sup>9</sup> using a difference-in-difference statistical approach found that the students of teachers who were hired via the entry examination obtained better results in ENLACE than the other students whose teachers were appointed discretionally, e.g. via joint committees (Estrada, 2015). Such differences were of '.52 standard deviations for mathematics and .31 standard deviations for Spanish' (Estrada, 2015, p. 20). Interestingly, Estrada (2015) maintains that entry examinations were not designed to identify teacher effectiveness, or the potential of NQT to positively and significantly impact on the students' academic outcomes. Nevertheless, teachers appointed via an exam might be conscious of the value placed on test results, as their position was gained that way. Therefore, a more intense ENLACE-focused instruction may prevail among these individuals that did not occur among others who got the post via discretionary methods.

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<sup>8</sup> In the academic year 2011-2012, 36.5% of the in-service teacher workforce in basic education got a category in Carrera Magisterial; of them, '54% had a level A, and only 4% achieved the top level E' (INEE, 2015b, p. 64).

<sup>9</sup> These teachers are lower-secondary education educators who work in remote rural communities with less than 1,500 inhabitants and typically teach all the academic subjects of at least one school grade (7<sup>th</sup>, 8<sup>th</sup> or 9<sup>th</sup> grade) with the support of distance education technology (i.e. a television) (Estrada, 2015).

The entrance examination was also meant to replace the so-called *escalafón*, a vertical professional career ladder created in the 1970s and managed via the joint committees whereby in-service teachers aspiring to a leadership role, e.g. headteacher, superintendent, applied for assessment. Yet, this part of the evaluations was never carried out, and the discretionary methods continued (Cordero & Luna, 2014).

The criteria in the *escalafón* were as follows:

- Knowledge 45% (including teacher credentials and CPD certificates)
- Aptitude 25% (willingness, hard work, efficiency and other activities)
- Professional experience 20%
- Discipline and punctuality 10%

(Martínez Méndez, 2015, p. 177).

### 2.4.3 *The universal teacher evaluation*

In 2012 the universal teacher evaluation, which was intended to provide data on teacher CPD needs, was introduced (Cordero et al., 2013). This assessment included similar evaluation instruments to those of Carrera magisterial and was made compulsory. Nevertheless, the teachers' union disagreed with the evaluation, which might explain why only 52.2% of teachers sat the exam (Informador, 2012). The universal teacher evaluation was short-lived and discarded during the federal administration 2012-2018. As observed by Cordero et al., (2013, p. 14) 'both, Carrera magisterial and the universal teacher evaluation seem to depart from the presumption that, the more training teachers receive, the better the academic achievement [of students] will be'. The problem is, that up to the time before the reform of 2013, CPD provision was more focused on the number of hours teachers dedicated to CPD, and less on the actual quality of those training options and the impact they had on the teachers' practice and the students' outcomes (*ibid*).

In sum, before the reform of 2013, in-service teacher evaluations were voluntary (Cuevas, 2018) and mainly used for career development, e.g. Carrera Magisterial. Although there was an attempt to regulate entrance to the education system, the teachers' union continued to incorporate personnel to the education system discretionally. Universal teacher evaluation for formative purposes was not supported and rapidly discarded. Thus, before the reform of 2013, 'about 60% of the total education staff in basic education [did] not go through an appraisal process' (Santiago, McGregor, Nusche, Ravela, & Toledo, 2012, p. 110). However, a common feature of all the previous policies on teacher evaluation was that neither the teachers' performance in standardised assessment, nor their students' results in ENLACE had implications for their permanence in the service (Cordero & González, 2016; Santiago, McGregor, et al., 2012). The next section addresses teacher CPD before the reform of 2013.

## 2.5 State-provided CPD before the reform

Teacher CPD in Mexico has traditionally been a responsibility of the State and the local education authorities (Cordero et al., 2017); its functioning is inherently linked to political agreements between the Secretariat of Education and the teachers' union. Two key examples are the launch of a federal institute for training the teacher workforce in 1943, which aimed to harmonise education in the rural and the urban areas of the country, and the creation of the already mentioned National Pedagogical University in 1979 (IEESA, 2012). To a large extent, teacher CPD has been used in Mexico to compensate for teachers' different preparations for the job and differences in credentials arising from past education policy.

In 1995 the so-called teacher centres as state-funded CPD providers were institutionalised (Valdez, 2017). These centres were dedicated organisations whose task it was to keep in-service teachers updated on CPD. According to a census covering up to 2006, the teacher centres were known for

their professional development assistance in three main areas 1) training in the use of a computer-in-the-classroom programme called Enciclomedia<sup>10</sup>; 2) school staff development *in situ*; 3) counselling tailored to Carrera Magisterial (OEI, 2007). Most commonly, these centres offered one-to-one advise on teaching (*ibid*). The same research revealed that before 2006, ‘these institutions addressed the continuing professional needs of 20% of the teachers in basic education’ (OEI, 2007, p. 132)<sup>11</sup>; and that ‘83.4% of them considered that the counselling, workshops and courses they received at these institutions were appropriate’ (OEI, 2007, p. 129).

From 2008 to 2012, 67% of the CPD providers were state-funded, and the rest from the private sector (Corder, Patiño & Cuti, 2013, cited in Cordero et al., 2017). Among the state-funded CPD providers, personnel from the secretariat of education and the local authorities contributed with 22.2% of total CPD provision; state universities with 21.6%; and institutes/technology universities with 18.4% of the CPD provision. The participation of teacher centres during the same period dropped to 8% (*ibid*). Normal schools represented less than 5% of the total CPD provision which could be in part because their main role is to provide ITE; still, 30% of the teacher centres had set collaboration agreements with normal schools up to 2006 (OEI, 2007). The training delivery modes during that period were in-person (face-to-face), blended and online learning (Cordero et al., 2017).

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<sup>10</sup> This programme targeted 5<sup>th</sup> and 6<sup>th</sup> years of primary education; thus, not all teachers received this training.

<sup>11</sup> On average, each *teacher centre* serves 267 basic education schools and teacher training colleges, and three-quarters of them have no more than ten staff members (Backhoff & Pérez-Morán, 2015).



The next sections address teacher development before the reform of 2013 in terms of the programmes intended for school improvement, and those targeting individual teachers. Distinctions between mandatory and voluntary training are highlighted.

### 2.5.1 *Collective forms of teacher development*

The Consejo Técnico Consultivo, which was effective until the academic year 2012-2013, required teachers and the headteacher to hold a meeting at least once a month (DOF, 1982) to provide technical insight into any of the following matters:

I.-Curriculum; II.-Teaching methods; III.-Evaluation of the programmes; IV. -**In-service teacher training**; V.-Purchasing educational materials, and VI.-Other matters of educational concern (*ibid*, *bold added*).

Although teacher training was part of the goals of these meetings, in practice, these spaces were mostly used for organisational and administrative tasks and were held outside of teachers' schedules who were not remunerated for their time (Ezpeleta, 1990). Furthermore, since the era of Carrera Magisterial, the teacher career ladder, teachers interested in obtaining salary increments through this programme had to participate in individual training (see next section) and in the so-called Talleres Generales de Actualización (CREFAL, 2017). These workplace gatherings were a collective form of teacher CPD, which was centrally steered, and mandatory for all in-service teachers. The courses took 12 hours to complete and were undertaken the week before the beginning of every academic year (SEP, 2012). Starting in 2008-2009, Talleres Generales de Actualización were replaced by a 40-hour<sup>12</sup> mandatory course called *Curso Básico de Formación Continua de Maestros en Servicio*, which, like its predecessor, consisted of staff development the week before the commencement of a new academic year (*ibid*).

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<sup>12</sup> In this report, 8 hours of CPD content equal one day of training.

### 2.5.2 *Individual-oriented teacher development*

In 2008 a national system for teacher professional development was created (SEP-SNTE, 2008). A dedicated department of the secretariat of education was in charge of designing and implementing teacher training for all basic education teachers (Backhoff & Pérez-Morán, 2015); workshops, diplomas, masters and PhD degrees were offered as part of this new system (Cordero et al., 2017; Valdez, 2017) via a national catalogue issued annually (UNESCO/UDP, 2009). The goal was to deliver '80% of the courses on subjects such as mathematics, sciences, Spanish, history, and civic education' (SEP-SNTE, 2008, p. 15). Furthermore, certification of skills would be issued, and teachers whose students performed low in ENLACE would be allocated to specific training (*ibid*). These latter two aspects, however, were never fully applied (Cordero et al., 2017). In the academic year 2009-2010, there were more than seven hundred programmes on offer which were delivered by national and international institutions. Furthermore, 42 of them were considered quality postgraduate programmes by the National Council on Science and Technology (CONACYT in Spanish), and 227 courses targeted Spanish, Maths and Sciences (UNESCO/UDP, 2009, p. 18).

Participants of Carrera Magisterial had to take training because it was part of the points-based evaluation for salary improvement (CREFAL, 2017). However, teachers who did not participate in the programme could join training voluntarily besides compulsory staff development at the beginning of the school year (Santiago, McGregor, et al., 2012). This was so because, from the outset, participation in additional training 'collocated teachers in a situation of self-development processes' (OEI, 2007, p. 153), making the individual self-accountable for their improvement. In sum, before the reform of 2013, participation in CPD outside the work schedule was voluntary as it was heavily oriented to the teachers who participated in the incentives programme (SEP, n.d.-b). One of the critiques about CPD before the reform of 2013 is that teachers had no chance to

feedback what their needs were and the type of training they considered to be appropriate (Ruiz Cuéllar, 2012a; UNESCO/UDP, 2009). In that sense, TALIS filled some knowledge gaps in this matter.

### *2.5.3 Teacher CPD before the reform: evidence from TALIS 2013*

Mexico participated in TALIS in 2008 (OECD, 2010); and most recently, in 2013 (Backhoff & Pérez-Morán, 2015; OECD, 2014) and 2018 (OECD, 2019). Given that MTE for entrance to the education system was first implemented in 2014, the data regarding TALIS 2013, which was subsequently reported in a TALIS-Mexico paper (Backhoff & Pérez-Morán, 2015), will be considered here as related to the pre-reform era.

In TALIS-Mexico 2013, primary school teachers reported a very high (97%) participation in CPD during the year explored, and 30% of them expressed that duties at home undermined involvement in training (Backhoff & Pérez-Morán, 2015). It was observed that workshops and diploma courses were the most popular CPD formats among the participants of the study (91% and 55% respectively) (p. 81). The three most common CPD subjects which were also perceived impactful on teachers' practice were as follows; primary school curriculum; pedagogy/instruction; content knowledge. The average participation in CPD among primary teachers was 23 days, far higher than eight days in training among secondary teachers from the country participants in TALIS. According to Backhoff and Pérez-Morán (2015), such high a number in CPD was possibly the result of a sum of training in workshops, diploma courses and school staff CPD meetings. Regarding appraisal conducted by an authority or colleague, the study showed that up to 80% of teachers received feedback after being observed in the classroom and reported a positive impact on their teaching practice. Finally, TALIS-Mexico also revealed that Mexican teachers needed more CPD on subjects such as teaching students with special education needs (SEN), and teaching in multicultural settings.

#### *2.5.4 Concluding statements on CPD before the education reform of 2013*

Before the education reform of 2013, teacher CPD was prevalent in collaborative forms but also targeted to the individual. All the above types of staff development required the training of higher authorities first, such as superintendents and headteachers, in a cascade fashion, and the use of booklets to guide the delivery of the courses to the teachers (SEP, 2012). It was noted that CPD providers tended to be more attentive to the number of hours of delivery than the actual application of new knowledge and skills in the teachers' practice (Cordero et al., 2013). This is an example of insufficient monitoring and evaluation (Cordero et al., 2013; Tejedor, 2012), and hence, the application of new knowledge or evidence of impact on the students' outcomes remains a knowledge gap concerning CPD in Mexico. In this sense, TALIS provided some insight into where the CPD was concentrated, which forms were perceived most impactful, and of teachers' professional development needs. Targeted research on the CPD opportunities before and after MTE might reveal in what ways the new TES tackles the past pitfalls of training and how it may address teacher development needs unsatisfied by previous reforms.

Notably, up to 2006, the State had the control of CPD, e.g. via teacher centres and state-run providers; however, during the federal administration 2006-2012, the participation of the private sector on matters of teacher professional development became more evident. Furthermore, since teacher development was typically addressed via national catalogues (Ruiz Cuéllar, 2012b; UNESCO/UDP, 2009), the teachers' needs according to teaching experience and differences in ITE backgrounds, among other components might have been overlooked. These issues are carefully considered in this PhD research. The following section addresses the central point of this research, namely, Mexican Teacher Evaluation, its origin as part of the education reform of 2013 and the subsequent changes to the education system it represented.

## 2.6 The education reform of 2013

In December 2012 the former president of Mexico Enrique Peña Nieto from the PRI party announced an education reform to guarantee the right to quality education (see next section below) and help the State recover control over education affairs from the teachers' union (Arnaut, 2014; Cuevas, 2018; Ornelas & Luna Hernández, 2016; Pérez Ruiz, 2014). MTE was central to the reform, as well as changes to teacher CPD. Nevertheless, the reform also included a system for the technical support of schools via intervention projects (SEP, 2017e), and a cash transfer to the school programme called *Escuelas al Cien* (ASF, 2018). These two latter are briefly reviewed in Appendix 2 as they are beyond the scope of this PhD research. Subsequently, in an event named *Pacto por México* (Pact for Mexico), the president and the leading political parties in the Federal Congress, endorsed the reform.

The legislative initiative was passed and published in the Federal Official Gazette on 26<sup>th</sup> February 2013 (DOF, 2013a). The same day, Elba Esther Gordillo, who had been the leader of the main teachers' union (SNTE) since the early 1990s was incarcerated (Ornelas & Luna Hernández, 2016). 'Gordillo was arrested and charged with embezzling nearly 95 million USD in union funds. With this move, a major political player was ousted after 23 years of leading SNTE thus, warranting with this practically no opposition from the teacher union to the new reform' (Echávarri & Peraza, 2017, p. 11). Thus, the reform suggested the rupture of a longstanding relationship between the government and the union.

This post-reform section of the Chapter explores ITE and the legal right to education in Mexico. The enactment and enforcement of MTE and new standards for teaching follow. The procedures of the evaluation, including the summative and formative components of the TES, and

implementation issues, are addressed. Existing research about MTE is also referred to in this section, followed by teacher CPD in the post-reform era.

### *2.6.1 Initial Teacher Education following the reform of 2013*

Since 2018, the curriculum of normal schools must match the teaching profiles arising from MTE (see section 2.7.1). Thus, the most recent bachelor's degree programme for primary education includes theoretical-methodological bases for teaching with ten units; preparation for teaching and learning, twenty units; professional practice, eight units; four optional units; and English with six units (CEVIE-DGESPE, n.d.). As the former programme, the 2018 version addresses classroom practice across the four-year degree and emphasises it during the last semester with 20 hrs per week for 16 weeks in total. The procedures to receive the bachelor's degree title are similar to those of the 2012 curriculum reform (*ibid*).

#### **2.6.1.1 Normal schools and universities concerning ITE**

Recent data reveal that 'in Mexico, there are 446 normal schools, of which 59% ( $n=263$ ) are state-funded, and 41% ( $n=183$ ) are private' (SEP, 2017c, p. 72); also, '86% of the students are enrolled in state-funded normal schools, and the rest in the private ones' (*ibid*). Nevertheless, not all state-funded teacher training institutions are equal. Some of them emerged to address specific circumstances, such as the normal schools which were set up in rural communities during the post-revolution period, and other schools concerned with the specialisation on various academic areas (Inclán, 2016). Moreover, the universities, both state-funded and private, have played a small part in ITE in Mexico since the creation of the National Pedagogical University. As shown, Mexican teachers are diverse in the ITE they received, which could potentially exacerbate inequity between applicants to a teaching post in the MTE time.

### 2.6.2 *The right to quality education*

There had been a general interest in education quality since the 1990s, e.g. as in Carrera Magisterial; however, before 2013, the term was not mentioned in the Constitution, where access to education as a legal right was the prime concern. Following the education reform of 2013, article 3 of the Mexican Constitution included quality in its ninth reform:

The State will guarantee the quality of compulsory education so that the materials, educational methods, the school organisation, the educational infrastructure and the suitability of the teachers and headteachers ensure the maximum learning achievement of the pupils (DOF, 2013b).

Nevertheless, López (2013, p. 64) argues that ‘quality education is not yet defined, nor the educational means to make it possible’, and a similar perspective is held by Cordero and González (2016). A document from the Inter-American Development Bank (IDB) provides evidence in favour of this last argument. The IDB granted a loan to the INEE for ‘the design, development and validation of a quality education indicator’ with the amount of US\$335,000 (IDB, 2015, p. 2). The potential implications of a definition such as the above regarding the appropriate means to achieve quality education are further problematised in section 3.2. Complementary legislation relating to MTE can be consulted in Appendix 3.

## 2.7 Mexican Teacher Evaluation (MTE)

MTE was a legally binding TES grounded in the Professional Teaching Service Law, which was set to improve the quality of state-funded education by determining suitable teaching standards and rewarding merit (DOF, 2013a; Ramírez & Torres, 2016). MTE regulated entry to the professional

education service (*hiring*), including regulation of temporary contracts<sup>13</sup>; career development pathways (i.e., *promotion*); and ongoing in-service teacher performance appraisal, at least every four years, with consequences for the job (i.e. *retaining the post*) of basic education and upper-secondary state-funded institutions' personnel. In contrast, private schools autonomously determine their means of hiring, evaluating, and replacing their workers, and hence, MTE did not apply in such cases (DOF, 2012, 2019b).

In brief, the education authority, represented by the secretariat of education was in charge of the design and implementation of the TES; the INEE validated a series of teaching profiles (see next section), and the evaluation instruments (Ramírez & Torres, 2016). Finally, the teachers' union (SNTE) had an active role in promoting MTE among teachers and offered training related to the assessments. Further details are provided throughout this Chapter. Appendix 4 presents a summary of the scope of MTE.

Concerning in-service teacher evaluations, it was possible to volunteer or wait to be called via a draw. Given the size of the teacher workforce in Mexico, each year, a proportion of the teachers would be called for assessment; for instance, in 2015, the first round of MTE for in-service, more than 134 thousand educators were evaluated, representing 10% of the teaching workforce (Padilla Medina, 2016b). A third of those in the first selected sample were primary education teachers (INEE, n.d.-b). These teachers were chosen among those of 6 to 23 years of experience, who worked in areas of more than 100,000 inhabitants; they also had to hold a permanent contract in the state-funded education sector, and be 30-45 years' old (OREALC/UNESCO, 2016; Padilla

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<sup>13</sup> Therefore, it is possible that teachers with some years of teaching experience working in the state-funded education sector decided or were selected to sit MTE to regularise their temporary contracts. Also, it was not necessary to undergo MTE prior to participation in the evaluations for promotion. Thus, there might be cases of promoted headteachers and superintendent who never sat MTE for retaining the post purposes.



Medina, 2016b). Participation in MTE 2016 was only voluntary and for those in their second opportunity to obtain a result above *insufficient* (see section 2.7.3). This situation may explain why slightly more than fifty thousand teachers sat MTE (INEE, n.d.-b); of which, only 10 thousand primary teachers participated in that year (Bravo, 2016).

Nevertheless, for the 2016 round, the local education authorities and the union were active advocates of MTE, which might have driven teachers to feel compelled to participate. For instance, calls for participants in each Mexican state, which can be consulted online, did not state the voluntary nature of MTE explicitly in 2016. Therefore, this research may have gathered some participants who perceived their partaking in 2016-MTE as a result of a draw rather than voluntary (see research sample in section 4.6.3.1). Before the education reform, there were no references of what constitutes 'good', 'suitable', or 'acceptable teaching' in Mexico (INEE, 2015d; OREALC/UNESCO, 2016); instead, the teacher workforce was regulated by a code of conduct, which posited a series of rights and duties (Barrera & Myers, 2011; Cuevas, 2018; DOF, 1946). Therefore, a series of teaching profiles were generated in the wake of MTE to standardise the expectations of teachers' performance.

### *2.7.1 Teaching standards in MTE*

In February 2014, the Teaching profiles, parameters and indicators for teachers and Special Education teachers (teaching profiles in short) were issued (SEP, 2014c). The teaching profiles 'are the references for MTE, because they define the characteristics of a good teacher in terms of knowledge, skills and professional responsibilities oriented towards quality teaching' (INEE, n.d.-a, p. 8). The teaching profiles were arguably based on Danielson's Framework for Teaching and draw on a similar experience in the region, such as The Good teaching framework from Chile (Barrera & Myers, 2011; Cortez, 2015). The profiles distinguished between generalist and subject teachers,

giving rise to ‘33 teaching profiles in basic education, and six more in upper-secondary education’ (INEE, n.d.-a, p. 9). The teaching profile for primary school teachers is divided into five dimensions, 16 parameters, and 56 indicators (see **Table 2.2**).

**Table 2.2. Five dimensions of the teaching profile for primary.**

|                    |   |
|--------------------|---|
| <b>Dimension 1</b> | A teacher that knows his/her students knows how they learn and what they must learn.  |
| <b>Dimension 2</b> | A teacher that organises and evaluates the educational work and makes pertinent didactic interventions.   |
| <b>Dimension 3</b> | A teacher that self-recognises as a professional who continuously improves to help their students to learn.   |
| <b>Dimension 4</b> | A teacher that takes the legal and ethical responsibilities inherent to their profession for the good of the students.                                |
| <b>Dimension 5</b> | A teacher that participates in the efficient functioning of the school and fosters a link with the community to ensure that all the students succeed. |

Source: (SEP, 2014c, p. 10).

A comprehensive report that included documentary analyses and interviews with teachers and decision makers stressed the loose connexion between the teaching profile and evaluation instruments (discussed below); thus, a review was recommended (OREALC/UNESCO, 2016). Nevertheless, to date, the teaching profiles have not been radically restructured.

### *2.7.2 MTE phases: the teacher evaluation instruments*

Teacher entry evaluations and promotion to headteacher, superintendent, and Technical Pedagogical Advisors (TPA) relied on exams about general content knowledge and professional and ethical responsibilities (Ruiz, 2018). The 2015 and 2016 evaluations for teachers to retain the post collected various types of evaluation evidence through four phases of evaluations (see **Table 2.3**). However, phase 1 was not included in the overall teachers’ results. While the SEP stated that it was to be used as a diagnostic (Vargas, 2016), the INEE argued that such a report was incorporated into the feedback (INEE, n.d.-a).

Table 2.3. The four phases in MTE.

|  |
|--|
| <p><b>Phase 1. Report of the teacher's professional responsibilities.</b> The headteacher, or superintendent, issues a report about the teacher's work in the school including the attention given to their students, the promotion of harmonious environments, their collaborative work with the school and their peer-teachers, and the way they integrate parents.</p>  |
| <p><b>Phase 2. Written assignment concerning a selection of students' learning productions.</b> The teacher collects a portfolio sample of the students' schoolwork as evidence of their teaching; they analyse it and explain it reflectively. The evaluation focuses on the contextual aspects of the school and the students, the curriculum-content, the learning activities and the results of them on students and the teacher's practice.</p> |
| <p><b>Phase 3. Standardised multichoice exam.</b> Based on hypothetical scenarios of teaching, the exam evaluates the teacher's knowledge and didactic competences utilised for student learning, collaboration in the school, and its relationship with the parents and the community.</p>  |
| <p><b>Phase 4. Written assignment on a teacher's lesson plan.</b> The teacher develops a lesson plan and a text where they set out the purpose, the structure, the content, and expected outcomes from such a plan. They reflect on what to expect from the students to learn and how they will evaluate it.</p>   |

Source: (INEE, n.d.-a, pp. 12–13).

In MTE, classroom observations, either in-person or videotaped, were not part of the evaluation (Cordero et al., 2013; Schmelkes, 2015b) due to the high cost they entail (OREALC/UNESCO, 2016). Therefore, this new TES was constrained to evaluate teachers' knowledge, actual classroom practice, and other related observable skills only indirectly. Unlike previous TES, neither the teachers' years of experience nor certificates from participation in CPD were considered for marks in MTE (Cordero & González, 2016). Furthermore, MTE did not include any forms of Value-Added Measures (VAM) (see section 3.2.3) or collective summaries of raw student achievement on national tests (e.g. ENLACE), because it was argued that 'the teachers' work is influenced by the context [and hence] the results depend on the socio-economic and cultural contexts of the students' (INEE, n.d.-a, p. 14). Nevertheless, advocacy for the incorporation of VAM using national test results in teacher evaluations endures in various academic reports (Mancera & Schmelkes, 2010; Santibañez et al., 2007), and the OECD's papers (2011b). The teachers' responses to the assignments and the exam were marked by certified evaluators using rubrics and following guidelines determined by the INEE (SEP, 2016f, 2019). In section 2.7.3, a summary of national teachers' results in 2015 and 2016 MTE is provided.

Computer interfaces and the Internet were used for all MTE phases. However, recent documentary research suggests that although the introduction of Information and Communication Technologies (ICT) in primary education dates three decades back in time, in-service teachers lacked training on ICT as part of their ITE at normal schools and the National Pedagogy University (Rodríguez & Veytia, 2017). This situation posits challenges to the appropriate use of computers and the Internet for pedagogical purposes, and as tools for the teachers' fulfilment of MTE requirements as well as their CPD (*ibid*). A survey conducted by the INEE (2016b) reported high rates of teacher dissatisfaction regarding MTE phases, mainly the exam, and hence, in 2017 two phases were integrated into one assignment as shown with arrows in **Table 2.4**. Still, the exam continued as part of all teacher evaluation processes implemented in MTE. Phase 4 was also problematic because it required the participants to justify their decisions concerning a lesson plan. Although the elements of a lesson plan were not unfamiliar to teachers, the written explanation of the plan was novel in this context, generating stress and disappointment among MTE participants (Carro Nava, 2016; DIE-CINVESTAV, 2017).

**Table 2.4. Teacher evaluation phases in 2015 & 2016 and 2017.**

|                | 2015 & 2016   | 2017  |
|----------------|---|---|
| <b>Phase 1</b> | Report of the teacher's professional responsibilities                       | Report of the teacher's professional responsibilities provided by the school principal and a teacher self-appraisal |
| <b>Phase 2</b> | Written assignment concerning a selection of students' learning productions | A teaching project including students' work samples, and lessons plans for a three-to-five-day period               |
| <b>Phase 3</b> | Standardised multichoice exam   | Standardised multichoice exam   |
| <b>Phase 4</b> | Written assignment on a teacher's lesson plan                               | -----   |

Source: (DOF, 2016a; INEE, 2016d).

### 2.7.3 Teachers' results in MTE

Teachers' results in MTE were reported as follows; the participants either as entrants to the service or to obtain a promotion, e.g. a headteacher post, could receive one of two outcomes: *non-proficient* or *proficient*. In-service teachers who participated to retain their post could receive one of four outcomes: *insufficient*, *sufficient*, *good* or *outstanding*. **Table 2.5** summarises national results in MTE 2015 and 2016 of primary education teachers' and personnel seeking entrance or promotion.

**Table 2.5. National statistics of 2015 & 2016 MTE results of primary education participants.**

|      |                      | MTE result      | Number of participants | Per cent |
|------|----------------------|-----------------|------------------------|----------|
| 2015 | Entrance & promotion | Non-proficient  | 30,473                 | 42.7     |
|      |                      | Proficient      | 31,614                 | 44.3     |
|      |                      | Did not sit MTE | 9,356                  | 13.0     |
|      |                      | Total           | 71,443                 | 100.0    |
|      | To retain the post   | Insufficient    | 4,984                  | 10.7     |
|      |                      | Sufficient      | 17,499                 | 37.7     |
|      |                      | Good            | 20,058                 | 43.2     |
|      |                      | Outstanding     | 3,935                  | 8.5      |
|      |                      | Did not sit MTE | -                      | -        |
|      |                      | Total           | 46,476                 | 100.0    |
| 2016 | Entrance & promotion | Non-proficient  | 23,904                 | 44.1     |
|      |                      | Proficient      | 27,599                 | 50.9     |
|      |                      | Did not sit MTE | 2,694                  | 5.0      |
|      |                      | Total           | 54,197                 | 100.0    |
|      | To retain the post   | Insufficient    | 1,852                  | 18.1     |
|      |                      | Sufficient      | 3,657                  | 35.8     |
|      |                      | Good            | 3,543                  | 34.7     |
|      |                      | Outstanding     | 452                    | 4.4      |
|      |                      | Did not sit MTE | 710                    | 7.0      |
|      |                      | Total           | 10,214                 | 100.0    |

Source: (INEE, n.d.-b).

Of the total sample of teachers called for mandatory assessments in 2015-MTE, 3,360 educators were dismissed because they did not take the evaluation (SEP, 2016d). However, **Table 2.5** does not reveal that primary teachers were among the removed teachers. In 2016-MTE, with a much

lower total participation, seven per cent of the teachers might have been discharged for not sitting the evaluation in their second opportunity following receipt of an *insufficient* result. Nevertheless, the following years there were subsequent calls to regularise those teachers to avoid their dismissal (Padilla Medina, 2016b; SEP, 2015a, 2016c).

#### 2.7.4 *Summative consequences in MTE*

Apart from the terminating consequences for those not showing up to the assessments, under MTE, in-service teachers who obtained an *insufficient* mark had to resubmit the evaluation the next academic year, be assigned to a tutor and join mandatory CPD, which involved dedicating unpaid extra time. Should a teacher get an *insufficient* outcome three times, which might happen after three consecutive years, they would be separated from teaching and relocated to a different role in the education system (DOF, 2013a). According to existing data, in 2017, 968 teachers from all levels of education sat MTE for the third and last time; of them, 374 obtained an *insufficient* result, and sixty-nine did not sit the evaluation (INEE, n.d.-b), leading to their discharge. However, new entrants would be assigned a tutor for a two-year probationary period. They would be assessed after one year and at the end of the second academic year. Those who obtained an *insufficient* result after the probationary period would be removed from the service without responsibility to the employer (DOF, 2013a).

#### 2.7.5 *Formative components of MTE: feedback report and CPD*

An electronic file — the feedback report — which included an overall result in MTE (e.g., *insufficient, good*), as well as numeric and text descriptors on the teacher's performance, was issued to the participants individually (Padilla Medina, 2016b) (see an example in Appendix 5). The formative indicators of a teacher's performance were presented to MTE participants in a rubric indicating their strengths and pitfalls (Schmelkes, 2017). In-service personnel who participated in

MTE for promotion or as part of the ongoing assessment if in receipt of a *non-proficient* or *insufficient* result must take CPD (*ibid*). The top three categories and *proficient* results could also participate in the CPD offer for *non-proficient and insufficient marks* (Padilla Medina, 2016b), although this was not mandatory (Cordero et al., 2017).

The reform of 2013 introduced mentoring programmes for NQT and underperformers at the evaluation. This component of the TES will be reviewed in section 2.8.2.1, which is concerned with State-provided CPD after the evaluation. According to the legal guidelines of MTE, in-service teachers should be provided with the necessary orientation in preparation for MTE (DOF, 2013a). This PhD explores the introduction of these forms of development during the MTE era.

### 2.7.6 Implementation issues

Teachers resisted MTE from the outset (Ramírez & Torres, 2016), particularly those assembled in the dissident portion of the teachers' union (i.e. the CNTE). Various strikes took place across Mexico, which led to physical confrontation (The New York Times, 2016), and some casualties (Urrutia de la Torre, 2015). One reason for that is because the evaluation was perceived as threatening the teachers' permanent positions in schools (CREFAL, 2017; OREALC/UNESCO, 2016). This meant that tenured teachers who underperform in the evaluation could now be removed from teaching and reassigned to a different activity in the education system.

Furthermore, the evaluation might have been resisted because teachers were not consulted during the formulation of the TES (Ramírez & Torres, 2016) and the teachers' union endorsed the reform (Poy, 2016), rather than securing the teachers' rights (Pérez Ruiz, 2014). Allegations of a poorly designed evaluation and opposition to the overall principle of the evaluation were also made (Martínez Rizo, 2016). Furthermore, given the emphasis on teacher assessments, dissident

teachers and some academics considered the reform of 2013 regulatory, rather than educational (Arnaut, 2014; Gil, 2018a). That is to say that in the view of some scholars, MTE was the central issue the reform sought to address. In contrast, a change to the education programmes in basic education, also part of the reform (Peraza & Betancourt, 2018) was postponed for the academic year 2018-2019, i.e. at the end of the federal administration (Gil, 2018a). Research in the region stresses that 'adhesion or resistance to the reforms depends on factors such as years of experience, and the relationship between the new and the old as perceived by the teachers' (Ávalos, Cavada, Pardo, & Sotomayor, 2010, p. 247). Thus, this research was needed to understand the implications of MTE from those unheard perspectives.

#### *2.7.7 Critiques of MTE concerning years of teaching experience*

For various reasons, the exclusion of teachers' years of experience in MTE was controversial. First, the content of the evaluation was not adapted according to the teachers' experience. This means that teachers with five years of experience or less submitted a similar assessment to senior teachers. Existing research suggests that years of experience and the teachers' credentials are not good proxies for better teaching (Clinton & Dawson, 2018; Martínez Rizo, 2016). Nevertheless, when it comes to teacher assessment, the international experience suggests the need to evaluate teachers according to their career stage (Education Services Australia, 2011, 2012). Thus, an evaluation that treats all as equal might not identify those who have not yet achieved specific skills concerning acceptable teaching and those who have already mastered them.

Length of teaching experience was also controversial regarding MTE for promotion purposes, such as the open contests for headteacher posts, because a minimum experience of two years was enough to, if successful, take one of the vacancies. Arguably, leadership-related roles should be held by experienced teachers (Ruiz, 2018). However, younger teachers might have an advantage



in the evaluation due to more recent pedagogical training and advanced knowledge, for example, in the use of computers than their more senior counterparts. To illustrate this, while 64.6% of the internet users in Mexico are 12-34 years' old, 35-44 years' old represent only 12.5% of the total (Tello-Leal, 2014); this last group encompasses the median teachers' age in Mexico. Therefore, this situation might have led to unequal opportunities to succeed in the evaluation because MTE was computer-mediated. In this regard, recent research shows that younger teachers were significantly more likely to obtain a headteacher post than older teachers (Ruiz, 2018).

### 2.7.8 Existing research about MTE

Two seminal reports steered by the National Institute for Educational Evaluation (INEE) addressed the beginnings of MTE; the first one consisted of a satisfaction survey administered to a 10% sample of the total teachers evaluated in 2015 (INEE, 2016b). According to this study, 56% of the teachers were highly satisfied with 'the pertinence of the students' portfolio [phase 2] to evaluate their teaching performance' (*ibid*, p.20). Conversely, up to 70% of the respondents considered that the exams were inadequate to grasp their teaching capacities (*ibid*, p.22). Regarding CPD opportunities, the respondents expressed their preference for workshops delivered by state-funded higher education institutions (*ibid*, p.34). The report presents valuable data about some difficulties faced by teachers during the 2015-MTE phases, such as logistical problems with computers at the testing centres. However, the participants provided little insight into how MTE could inform further CPD, mainly because few had had access to it at the time the data was collected. This PhD research substantially extends these findings and contributes to addressing such a knowledge gap.

The second project consisted of forty focus groups with teachers from three 2015-MTE categories (those who attained *sufficient*, *good*, and *outstanding*) in 10 of the 32 Mexican states. Also, 31

individual interviews with teachers in the *insufficient* category teachers were conducted (INEE, 2016c). The project reported the following: firstly, focus group participants typically expressed that ‘given the conditions under which [MTE] occurred, this was unfair, inhuman, and a threat to their rights’<sup>14</sup> (*ibid*, p. 25). While some teachers considered that MTE could assess some aspects concerning classroom practice (*ibid*), others disregarded the exam as a suitable instrument to evaluate teacher performance because ‘it was not appropriate to be seated for up to eight hours’, which was the time given to complete the exam and the lesson plan component of the evaluation (*ibid*, p. 40). The teachers also raised the concern of ‘the lack of access to the rubrics based on which they were evaluated’ (*ibid*, p. 42), thus leading to distrust in the results (*ibid*, p. 45). Regarding the feedback report, ‘the majority considered it a very general, not very useful means to inform their professional development needs and effectively improve their teaching practice’ (*ibid*, p. 55). Still, some teachers acknowledged that MTE prompted professional conversations with fellow teachers and school principals (*ibid*).

Up to April 2016, most participants of the INEE’s study had no idea of what CPD options existed, and ‘confused them with those offered by the teacher union named SNTE-SINADEP’ (*ibid*, p. 59). Most of INEE’s participants suggested that further CPD should be provided via *in-person* format; however, full-time teachers expressed their preference for *online* and *blended-learning* courses. In general, teachers in the *insufficient* category believe that the evaluation did not consider their contextual situations. The study’s participants were portrayed as not against MTE but raised concerns about the technical and bureaucratic issues around the evaluation. Nevertheless, most interviewees stated that MTE could not grasp their teaching performance. Therefore, this PhD research seeks to extend existing knowledge on matters of teacher CPD as informed by MTE, which

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<sup>14</sup> In some states the Mexican Teacher Evaluation Centres were safeguarded by the local police.

was not possible to ascertain at the time of the INEE's reports. Understanding the contribution of MTE to CPD is vital to evaluate the usefulness of the TES in informing those areas of opportunity. Also, to review the response of the State on matters of further teacher development, for instance, how well-aligned is the CPD on offer with that suggested via the feedback report of MTE.

The regional branch of UNESCO for Latin-America researched 2015-MTE via documentary and original qualitative data inquiry (OREALC/UNESCO, 2016). Their findings stressed the technical pitfalls of some of the 2015-MTE instruments; for instance, that only a third of the exam's items were partially reviewed, and that the evaluation was piloted with a population dissimilar to the final participants (*ibid*). Furthermore, the report underlined some conflicts between the teaching profile (standards for teaching) and the overall teacher evaluation grading. This report, as well as those carried out by the INEE, revealed useful, yet mixed findings on the value of MTE for teaching improvement, for instance, via CPD because such data was not readily available at that time. Moreover, in none of these studies was CPD compared before and after MTE. This research argues such knowledge is essential in the overall evaluation of the new TES and for planning future teacher development.

Another aspect this PhD research addresses, which was not referred to in previous inquiry, relates to the perceived impact of CPD on the teachers' practice according to years of experience in the context of MTE. Such knowledge is relevant because as argued, decisions on what CPD to offer could be better informed by an understanding of the teachers' current knowledge and skills, but also their self-perceived needs. The research was also inspired by previous calls for further research on matters concerning the practical implications of MTE for the teachers' practice (Salmeron, 2015, cited in Cordero & González, 2016). Especially because TES implementers might disregard that

‘teachers have extensive and in-depth ‘field knowledge’ that tends to be left aside’ (Echávarri & Peraza, 2017, p. 17).

## 2.8 State-provided CPD after MTE

During 2015 and 2016, the federal educational authority managed teacher professional development centrally, and hence, the local authorities had difficulties in interpreting the professional development project envisaged at the federal level. For instance, local authorities were unable to tell teachers, mainly those in probation and with *insufficient* or *non-proficient* results, whether taking CPD was mandatory (Cordero et al., 2017). Changes to CPD provided by the state to school staff and individuals are addressed in this section of the Chapter.

### 2.8.1 Collective forms of teacher development

Following the reform of 2013, the mandatory five-day Curso Básico de Formación Continua de Maestros en Servicio explained in section 2.5.1 was given a new name: intensive school staff CPD meeting. Furthermore, monthly school staff CPD meetings (8 days), without students, became mandatory as well (DOF, 2017b; SEP, 2013). That is 13 days of workplace staff development per year, starting from 2013-2014<sup>15</sup>. Nevertheless, although regulations of school staff meetings assert that these spaces are meant for the professional development of teachers, in practice, headteacher and the staff plan a project for school improvement, which they reviewed every time they met throughout an academic year (SEP, 2014b, 2015b).

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<sup>15</sup> Given that the 13 days of school staff CPD started during the academic year 2013-2014, in this thesis, when referring to mandatory school staff CPD meetings in chapter 5, it will regard to collective forms of teacher CPD before 2015-MTE, that is, during 2014-2015.

Furthermore, according to the guidelines of these meetings, the schools could also discuss matters of concern to their communities and were entitled ‘to learn about the norms and education policies and the indications coming from the local educational authorities’ (SEP, 2013 Article 13). The latter is relevant to explore whether teachers had the opportunity to review education policy related to MTE as part of the meetings.

### *2.8.2 Individual-oriented teacher development*

From April 2016, a centrally-managed teacher CPD catalogue was issued to support the teachers’ needs, and such training was promised to be “made-to-measure” (SEP, 2016e). Thus, besides mandatory school staff CPD meetings, more than 500 courses for basic education teachers and 50 for upper-secondary teachers would be offered (SEP, 2016a). The expenditure on training was MXN 1,800 million (£73 million)<sup>16</sup>. However, an analysis of the catalogue published in mid-August 2016 revealed that rather than hundreds of courses, only 27 options were on offer. Still, the number was multiplied by the different levels and roles in the education system, e.g. generalists, subject specialists, primary, secondary teacher, which gives the appearance of more numerous CPD courses offered (Cordero et al., 2017). This situation undermines the claim to provide a made-to-measure teacher training following MTE.

Teacher CPD delivered online started to gain prominence since 2015 because it alluded that previous training options did not consider ‘the lack of time to participate in these courses given the academic and personal responsibilities’ of the teachers (Meléndez, 2015, p. 328 cited in Cordero et al., 2017, p. 76). That could be a reason why in 2017, state-provided workshops and diplomas

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<sup>16</sup> Calculated on the 10<sup>th</sup> of April 2019 as follows: £1 = MXN 24.66 (<https://www.xe.com/currencyconverter/convert/?From=GBP&To=MXN>)

were delivered entirely online (CREFAL, 2017; SEP, 2017d). Therefore, this study seeks to clarify and extend such data by examining the availability of CPD, mainly for MTE participants during the academic year 2016-2017, which will also serve to contrast with CPD before the first major MTE assessments of 2015.

In sum, the main change between state-funded CPD before and after the reform includes a restructuring of school staff CPD meetings, making them mandatory and focused on school improvement planning. Furthermore, an intention to provide each teacher with the CPD they need according to their results in MTE. A transition to online learning is also evident post-reform, as well as accelerated participation of for-profit and non-for-profit CPD providers. Although this move started way before, mainly, during the 2006-2012 federal administration (Cordero Arroyo, Fragoza González, & Vázquez Cruz, 2015), in 2017, state-funded universities represented only 27% of the total number approved for CPD provision (SEP, 2017d). In absolute numbers, that is 40% less representation of state-run institutions as CPD providers following MTE implementation. Under the reform, individual-oriented CPD would involve gathering evidence on the application and impact of new skills on their teaching through small-scale research projects (SEP, 2017e, 2017b). The means to enforce these initiatives is not known yet; however, decision makers should review what sort of research training teachers receive, so that knowledge production at the schools is viable. This research provides some light on this latter matter.

### **2.8.2.1 Tutorship, the introduction of mentors**

According to MTE, new teachers and those in receipt of an *insufficient* mark in the evaluation would be assigned a mentor for development (DOF, 2013a). Teachers interested in adopting a tutorship role had to evidence their experience, take training and sit MTE; however, these posts were voluntary, and salaries were not established, but symbolic remunerations (Cuevas Cajiga & Moreno

Olivos, 2016). Furthermore, tutors combined this responsibility with their regular duties as classroom teachers (*ibid*). Despite the intention to introduce these forms of CPD, up to 2016, 'only 20% of NQT teachers were provided with a tutor' (DIE-CINVESTAV, 2017, p. 3). Divergences between policy and the way it is implemented further motivate this research. Another issue related to MTE for entry to the education system consisted of the limited support available in preparation for the evaluation. Thus, a range of teacher training on MTE phases emerged alongside the state provision, as presented next.

### *2.8.3 Teacher study groups, freelancers and the teachers' union*

The reform did not consider the provision of NQT preparation for MTE, but some local authorities offered an orientation (Cordero et al., 2017). Furthermore, in-service teachers without access to training for MTE in their localities, despite this being part of the new TES (DOF, 2013a), joined *informal* types of CPD. For instance, some teachers joined teacher study groups, hired an advisor, or took part in training offered by the teachers' union. Regarding the first two cases, self-managed, fee-taking teacher study groups emerged all over Mexico in the wake of MTE, with gatherings advertised, mainly, via online social networks. Some academics warned of the questionable quality of some market-based providers (Padilla Medina, 2016a) who presented themselves as experts on the evaluation instruments, even though, as has been previously argued, these were new in this context (DIE-CINVESTAV, 2017).

The teacher's union created the National System for Professional Development (SINADEP in Spanish) as a non-profit teacher training organisation (Cordero et al., 2017). Their teacher development offer includes tutoring tailored to MTE phases, professional development through strategic partnerships, and innovation and research (OREALC/UNESCO, 2016; SINADEP, 2017). Recently, the SEP recognised the SINADEP as a CPD provider and commissioned them to deliver

several courses (SEP, 2017d). Thus, the foundation will be able to receive public funds for their services, which casts doubt on the rupture between the government and the union mentioned in section 2.6.

Apart from traditional school staff CPD meetings, basic education teachers' involvement in matters relating to academic and professional development through networks like the type MTE prompted 'was minimal or almost inexistent' in Mexico prior to MTE (SEP, 2017f, p. 17). Thus, the phenomenon was depicted as extraordinary:

There were some unanticipated formative effects of MTE, [for instance], different collaborative strategies among peer teachers, and the SNTE took place, which fostered developmental processes of reflexivity about quality teaching (OREALC/UNESCO, 2016, p. 4).

However, Gil (2018a) argues that teachers might have assembled to learn how to pass the assessment and not how to improve their practice. Furthermore, the UNESCO study did not investigate the extent of continuity of these study groups, or who paid for them, among other characteristics which could help to explain the rationale of these assemblies. Addressing this gap in knowledge was part of this research as well.

## 2.9 Summary of the Chapter

This context Chapter presented an overview of the Mexican education system, its size and challenges in the pursuit of quality education. **Table 2.6** shows a comparative chart with the key changes in the education system arising from the education reform of 2013.



The existent dearth of knowledge suggests that MTE requires further research on issues such as how the teacher evaluation influenced participation in teacher development. Also, to compare the most common teacher development areas identified by TALIS and those undertaken in the wake of MTE. The extent of take-up and the perceived impact of CPD on practice according to the professional experience of teachers is also under-researched in the context of MTE. Furthermore, it is essential to review how closely the feedback report MTE participants received and the CPD undertaken afterwards are, and how CPD after MTE might contribute to better practice and quality education improvement. Likewise, data on the teachers' needs after MTE would provide valuable information on the development areas that decision makers could address. Finally, researching the topic at this time is critical in light of further changes proposed by the new federal administration (DOF, 2019c). This latter issue will be briefly tackled at the end of this thesis, however, as it is beyond the scope of this PhD research.

**Table 2.6. Critical pre-reform and post-reform changes in the education system.**

| <b>Topic</b>                                | <b>Pre-reform (before 2013)</b>  | <b>Post-reform (since 2013)</b>  |
|---|--|--|
| <b>Legal right to education in Mexico</b>   | It was a matter of access up to upper-secondary.   | Access up-to upper-secondary continued, and the term <i>quality education</i> was included.  |
| <b>Initial Teacher Education graduates</b>  | No certification after ITE, but an examination to join the state-funded education system applied from 2008. Graduates from normal schools had a preference, but joint committees between the secretariat of education-teachers' union could incorporate personnel as well. Corrupt practices, such as buying and selling posts, existed. | A probationary period of two years was enacted, and three evaluation points applied as follows; entry to the system, at the end of the first and second academic years in-service. MTE became the only legal means to work in the state-funded education sector. |
| <b>TES</b>                                  | Carrera magisterial. Entry examinations from 2008. A universal teacher evaluation.   | Mexican Teacher Evaluation.  |
| <b>Permanence in the job related to TES</b> | Did not exist.   | In-service teachers' permanence in the job was linked to performance assessments every four years. NQT   |

|  |  |   |
|--|--|---|
|  |  | could be sacked if underperforming at the end of a two-year probationary period.  |
| <b>The relevance of teaching experience in TES</b>   | Was pondered as part of the incentives programme Carrera Magisterial.  | Did not count for marks in the ongoing teacher evaluations, but a minimum of two years of experience was required to compete for a leadership role via MTE.   |
| <b>Provision of feedback following an assessment</b> | Did not exist, but it was an intention of the universal teacher evaluation.  | MTE participants were provided with a summative result and formative indicators on their performance via an electronic file.  |
| <b>Teaching standards</b>                            | Did not exist, but a code of conduct of the profession.  | The teaching profiles.  |
| <b>State-provided workplace CPD</b>                  | Superintendent and TPA-led school improvement initiatives.<br>Five-day school staff CPD meeting before starting a new academic year, and school staff CPD meetings at least once a month | A new system on superintendent and TPA support to the school.<br>Five days mandatory school staff CPD meetings before starting a new academic year and eight more days throughout an academic year (13 days in total). The focus was on the annual school improvement plan. |
| <b>State-provided individually-oriented CPD</b>      | Non-compulsory, but pondered in a participant's results in the incentives programme Carrera Magisterial.   | Compulsory for teachers with <i>insufficient</i> and <i>non-proficient</i> results in MTE, but not for the rest of the teachers.  |
| <b>Tutorship or mentoring for the teacher</b>        | Did not exist in primary education.  | Implemented for NQT and underperformers in MTE.   |
| <b>State-provided CPD providers</b>                  | 67% were state-funded institutions.  | 27% were state-funded institutions.   |
| <b>Most commonly taken CPD subject-areas</b>         | Primary school curriculum; pedagogy or instruction; content knowledge.   | Pedagogy; school management; content and pedagogy-knowledge; transversal topics. Inclusion and equity in the school; behaviour management for school and society convivence.  |
| <b>State-provided CPD delivery modes and formats</b> | In-person, online, and blended learning workshops, diplomas, masters and PhD degrees.  | Only online delivery in 2017; Workshops and diplomas.   |
| <b>Providers regarding preparation for TES</b>       | Teacher centres  | Not considered in the law but undertaken by the local education authorities; self-managed teacher study groups, freelancers, and the teachers' union.   |

## 3 Literature review

### 3.1 Introduction

The purpose of this Chapter is to present a state-of-the-art literature review of the leading research areas that underpin this inquiry. Coherently with the context Chapter, the substantial theoretical and empirical research on quality education, teacher quality, standards for teaching, TES, and teacher CPD are addressed. The Chapter provides a critical overview and background to this research and identifies gaps in the previous inquiry. The literature was selected using electronic searches of extensive databases and academic journals, and printed resources from the School of Education library, such as Masters' and PhD's dissertations. Besides academic literature, the Chapter refers to relevant reports produced by International Organisations (IOs) and policy briefings.

The Chapter begins with a review of the broader concept of quality education, considering two mainstream approaches to the term, e.g. the human rights and the human capital frameworks. Together with the contribution of EER in matters of education quality, this body of knowledge is to provide a background and to explore how such knowledge is considered in Mexico's education policy. Subsequently, two conceptual frameworks regarding teacher quality are analysed to locate the boundaries of MTE about teacher assessment and to critically review the possibilities and limitations of the new TES in Mexico. This section examines the theoretical and empirical literature about teacher quality as inputs, processes and outputs, and the role of context (Goe, 2007; Naylor & Sayed, 2014).

The review then follows with an analysis of standards and frameworks for teaching. Some examples of teaching standards are provided and critically considered in the context of policy borrowing, as with the case of Mexico's teaching profile (Cortez, 2015). The Chapter continues with the rationales and implications concerning the introduction of TES for quality education improvement, and the instances where these policies report positive impacts. After this, the formative, summative and unintended consequences of TES, and challenges in MTE, are analysed.

The Chapter concludes with a review of teacher CPD as an often-regarded means for teacher quality improvement. The section is a review of teacher learning approaches (Timperley, Wilson, Barrar, & Fung, 2007; Yoon, Duncan, Lee, Scarloss, & Shapley, 2007), which in this study served to illustrate the not always straightforward relationship between TES, CPD, and quality education improvement. Methodologically, this literature justifies approaching teachers and other stakeholders as research participants, mainly because of their experiential knowledge of education policy and practice. This section also reviews evidence of different forms of teacher development, such as formal and informal, individually and collectively oriented. A pathway for the successful development of CPD (Guskey, 2013, 2016) is critically addressed in this part. Finally, a summary of the existing knowledge on the different topics, the identified gaps in the literature, and specific research questions are put forward to focus the investigation of teacher evaluation and professional development in the context of the recently introduced education reform in Mexico.

### 3.2 Quality education

Quality education is a slippery construct; it changes; it adapts and confuses. The term is itself political because it provokes adoption, adaptation and contestation among the public (Ball, 2015). Therefore, finding a single definition of the term is complicated because many voices have made their way towards framing it for a global context. In this respect, Sayed and Ahmed (2015a, p. 332)

recommend that ‘when reviewing the global education discourse, attention should be paid to who sets the global agenda’. However, given that it is sometimes difficult to be sure who are the masterminds defining a concept like quality education, this review is primarily concerned with how the notion is framed in policy and the effects it has in practice, rather than uncovering such power connexions.

The two dominant approaches to quality education, i.e. the human rights and the human capital approaches, and the stances of two prominent IOs of which Mexico is a member, i.e. the UNESCO and the OECD are contrasted with definitions of quality education in Mexican policy.

### *3.2.1 The human rights and the human capital approaches to quality education*

A genealogy of the concept distinguishes two notions of quality education; one of them, known as the human rights approach, relates to a ‘humanist/progressive approach [which] is characterised by a broad concern for the development of the whole child and human development or social change’. The second, the human capital approach is an ‘economist approach, [which] is largely concerned with efficiency and effectiveness, and the achievement of learning outcomes at reasonable cost’ (Barrett, Chawla-duggan, Lowe, Nickel, & Ukpo, 2006, p. iii). After the Second World War, widespread interest in improving economic and social conditions trusted education as the appropriate means to that end (McCowan, 2013). While the Universal Declaration of Human Rights embraced the right to free elementary education in article 26 (United Nations, 1948), during the 1960s, economists developed the theory of human capital, which posits that a better-educated workforce can yield monetary benefits (Schultz, 1961).

The World Declaration on Education For All held in Jomtien, Thailand in 1990, is amongst the most prominent summits as it gathered signed support from most nations not only to provide education but to address issues of its quality.

In essence, the Declaration asserts the necessity for all people around the world to have their 'basic learning needs' met, focusing on universal access to primary school, but also youth and adult education, attention to quality and to inequities in relation to gender and ability (McCowan, 2013, p. 4)

Ample debates followed up the Jomtien Declaration, particularly regarding the emphasis given to primary education over other levels of education. Further discussions concerning the stress given to either education as a right, or education for economic development, as indicators of quality took place as well. Although some progress has been made about access to schools, the urgency for higher indicators of quality of provision and gender parity continue in the agenda, for example, in the current *Goal 4: Quality Education* of the Sustainable Development Goals (UN, 2015). The following section presents the perspectives of two relevant instigators of narratives on quality education of which Mexico is a member, i.e. the UNESCO and the OECD.

### *3.2.2 The UNESCO and the OECD in matters of quality education*

The academic and professional literature regarding UNESCO's and OECD's stances in questions of education quality is a research subject in its own right; thus, it cannot be addressed in its entirety here. On the one hand, the UNESCO defines quality education as 'one that satisfies basic learning needs, and enriches the lives of learners and their overall experience of living' (UNESCO, 2000, p. 17), but argues that 'what students are meant to learn has often not been clearly defined, well-taught or accurately assessed' (ibid). In a subsequent report, UNESCO specified two elements of quality 1) 'learners' cognitive development', and 2) 'values and attitudes of responsible citizenship

[along with] creative and emotional development' (UNESCO, 2004, p. 17). Arguably, based on these statements, the primary concern of UNESCO is education as an entitlement, and as learning development, which is more in line with a human rights approach.

On the other hand, the OECD claims that economic development relates to improved knowledge and cognitive skills-based society. Hence, the extent of attainment in international testing, such as their well-known PISA tests is an essential benchmark that countries should aim (Hanushek & Woessmann, 2010; Hanushek et al., 2016; Meyer, 2014). Econometric studies conclude that 'relatively small improvements in the skills of a nation's labour force can have very large impacts on future well-being' (Hanushek & Woessmann, 2010, p. 3). Similarly, one of the rationales provided to enact the education reform of 2013 in Mexico was that because of the consistent low performance in comparative student assessments, such as PISA, the quality of education should be improved via teacher performance assessment (de Ibarrola, 2018; Nava Amaya & Beltrán, 2014).

Given the longstanding membership of Mexico with UNESCO and OECD, arguably, the way quality education is posited in Mexico's national policy incorporates elements from both mainstream approaches. As mentioned in section 2.6.2, quality education as a legal right in Mexico not only refers to 'the maximum learning achievement of the pupils' but also, to 'the maximum academic achievement of the students' (DOF, 2013b section d). Therefore, the reform embraces two aspects, which arguably may mean different things. While learning can be understood in a broader context, not just the school, and including various cognitive and non-cognitive realms of the individual (Barrett et al., 2006; Sayed & Ahmed, 2015a; UNESCO, 2004; Winthrop, Anderson, & Cruzalegui, 2015), academic achievement has been traditionally related in the Mexican context to the students' test results (Gil, 2018a; Moreno, 2019a; Santibañez et al., 2007).

Thus, this situation may complicate the application of policies for improvement in terms of the emphasis decided for it, be it to guarantee the integral development of the child, as in the human rights approach, or as a medium for economic growth, as in the human capital approach. This tension was brought forward to provide a background to the existing processes related to quality education, mainly regarding TES as a method for improvement.

### *3.2.3 Educational Effectiveness Research in matters of quality education*

Conceptions of quality education have been enriched by integrating research findings from EER, which arguably arises from two convergent traditions: School Effectiveness Research (SER) and School Improvement (SI) movements (Reynolds et al., 2014). Mitchell (2015) summarises the work of SER as being concerned with the study of the factors associated with the relative 'effectiveness' of a school to identify what makes some schools comparatively more effective than others. The author identifies self-evaluation and school development planning as commonplace devices of the SI tradition (*ibid*). In SER, measures of students' value-added (VAM) are the most distinctive tools used to quantify the extent of academic progress overtime by taking data at different points, two at least, and background and contextual information from the students in some cases (Muijs et al., 2014; Thomas, 1998). SI draws on qualitative, ethnographic, and participatory approaches to research (Sammons, 1999b) and is more concerned with the processes that produce better students' cognitive and non-cognitive outputs (Townsend, 2007).

One of the key findings in EER relating to the current understanding of quality education considering academic and non-academic students' outputs is the prevalence of classroom-level factors, such as teaching practice and interactions between teachers and pupils (Muijs et al., 2014). Likewise, EER purports that to understand the processes underpinning effectiveness these phenomena should be addressed as multiple factors at multiple levels, e.g. the classroom, the

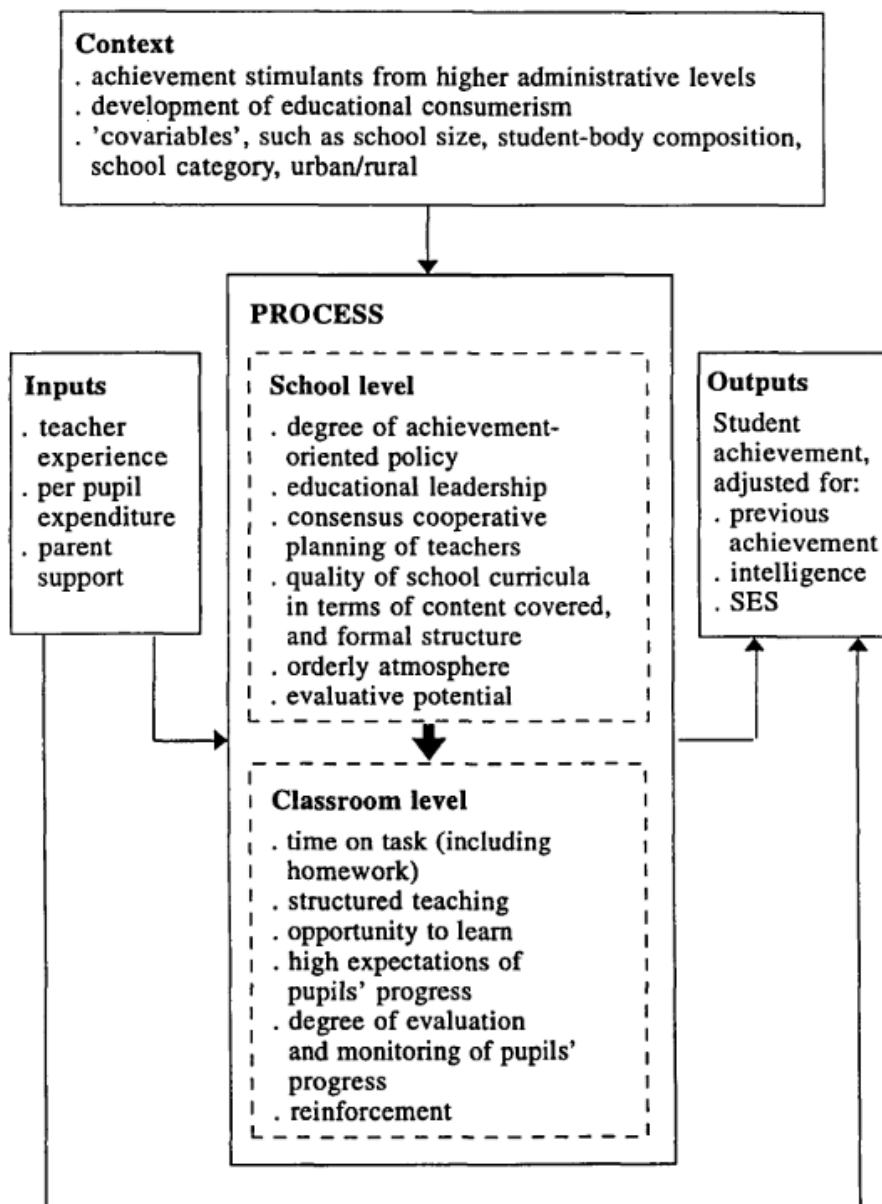


school, the education system, and so on (Creemers & Kyriakides, 2006; Muijs et al., 2014). The following section presents a selection of EER models.

### ***3.2.3.1 Educational Effectiveness models: critical aspects related to quality improvement***

Scheerens (1991, 1997) and Creemers and Kyriakides (2006) have developed some of the most notable models of EER. In the early 1990s, Scheerens added a series of process indicators to the quintessential rational approach to SER, better-known as the input-process-output model (Mitchell, 2015; Muijs et al., 2014; Reynolds et al., 2014). **Figure 3.1** shows that, for Scheerens (1991, 1997), studies of school effectiveness should aim at looking at context factors, as well as inputs and processes to be able to predict more precisely the outputs of schooling. Over time, knowledge on matters of EER has evolved to a point in which the *effects* of teachers and schools on the students' learning apart from being understood in its multi-level nature, it is maintained that such results might not necessarily be linear nor static. In that sense, drawing on previous research, Creemers and Kyriakides (2006) came up with the Dynamic Model of Educational Effectiveness, see **Figure 3.2**.

Figure 3.1. An integrated model of school effectiveness.



Source: Scheerens (1997), p. 281.

Creemers and Kyriakides (2006) suggest that educational research should consider the role of the classroom, the school and the system, by addressing five dimensions 'frequency, focus, stage, quality, and differentiation' (*ibid*, abstract). Regarding the teacher level, the dynamic model emphasises on eight teacher factors (figure 3.2), which are screened against the five dimensions to uncover effective teaching practices. These dimensions correspond to behaviours that can be tackled, for example, via classroom observations (Muijs et al., 2014).

Figure 3.2. The Dynamic Model of Educational Effectiveness.

| Factors                                     | Main elements   |
|---|---|
| (1) Orientation                             | (a) Providing the objectives for which a specific task/lesson/series of lessons take(s) place<br>(b) Challenging students to identify the reason why an activity is taking place in the lesson.   |
| (2) Structuring                             | (a) Beginning with overviews and/or review of objectives<br>(b) Outlining the content to be covered and signalling transitions between lesson parts<br>(c) Drawing attention to and reviewing main ideas.   |
| (3) Questioning                             | (a) Raising different types of questions (i.e., process and product) at appropriate difficulty level<br>(b) Giving time for students to respond<br>(c) Dealing with student responses.  |
| (4) Teaching modelling                      | (a) Encouraging students to use problem-solving strategies presented by the teacher or other classmates<br>(b) Inviting students to develop strategies<br>(c) Promoting the idea of modelling.  |
| (5) Application                             | (a) Using seatwork or small-group tasks in order to provide needed practice and application opportunities<br>(b) Using application tasks as starting points for the next step of teaching and learning.   |
| (6) The classroom as a learning environment | (a) Establishing on-task behaviour through the interactions they promote (i.e., teacher–student and student–student interactions)<br>(b) Dealing with classroom disorder and student competition through establishing rules, persuading students to respect them and using the rules. |
| (7) Management of time                      | (a) Organizing the classroom environment<br>(b) Maximizing engagement rates.  |
| (8) Assessment                              | (a) Using appropriate techniques to collect data on student knowledge and skills<br>(b) Analysing data in order to identify student needs and report the results to students and parents.<br>(c) Teachers evaluating their own practices.   |

Source: Creemers & Kyriakides (2006).

Arguably, MTE is not concerned with the multilevel nature of educational effectiveness and therefore, the advancements of EER might not seem directly relevant to this research. Nevertheless, the scholarship of EER has been closely related to the body of knowledge of teacher effectiveness research. It has uncovered some of the most notable factors at classroom level associated with educational effectiveness (Muijs et al., 2014). For instance, it is well-established that aspects such as time on task, behavioural control, ability to formulate questions, and the teacher's expectations of their students all matter. Most recently, the development of self-regulating and metacognitive skills in the students are considered essential for effectiveness (Muijs

et al., 2014; Reynolds et al., 2012; Scheerens, 2015). Therefore, this study explores the potential of MTE to tackle these issues and the related teacher CPD opportunities to contribute to the improvement of teacher quality and educational outputs as indicators of quality education in Mexico.

### 3.2.4 *Concluding statements on quality education*

Quality education is a continuously evolving construct that incorporates different views about the purpose of schooling, as formally understood (see Barrett et al., 2006). International Organisations such as the UNESCO and the OECD of which Mexico is a member embrace the views of human rights and the human capital approaches for quality education to a different extent each. Arguably, depending on the emphasis on one or the other methods has implications for practice. This is because, as Ball states, 'we do not *do* policy, policy *does* us' (2015, p. 307); that is, people are the products of ideological, normative, and regulatory instruments and hence, we think and act in consequence.

The matter of work EER was explored to reflect on how the advancements of academic research may have a part in the definition of quality education. Notably, the new TES in Mexico does not include VAM indicators nor address education phenomena at multiple levels. Still, its focus is on individual teachers, rather than on contextual, or direct evidence of processes related to quality education. In that sense, it is necessary to critically review the possibilities and scope of MTE to address issues of quality education as it is understood in this context.

### 3.3 *Two models of teacher quality that inform this research*

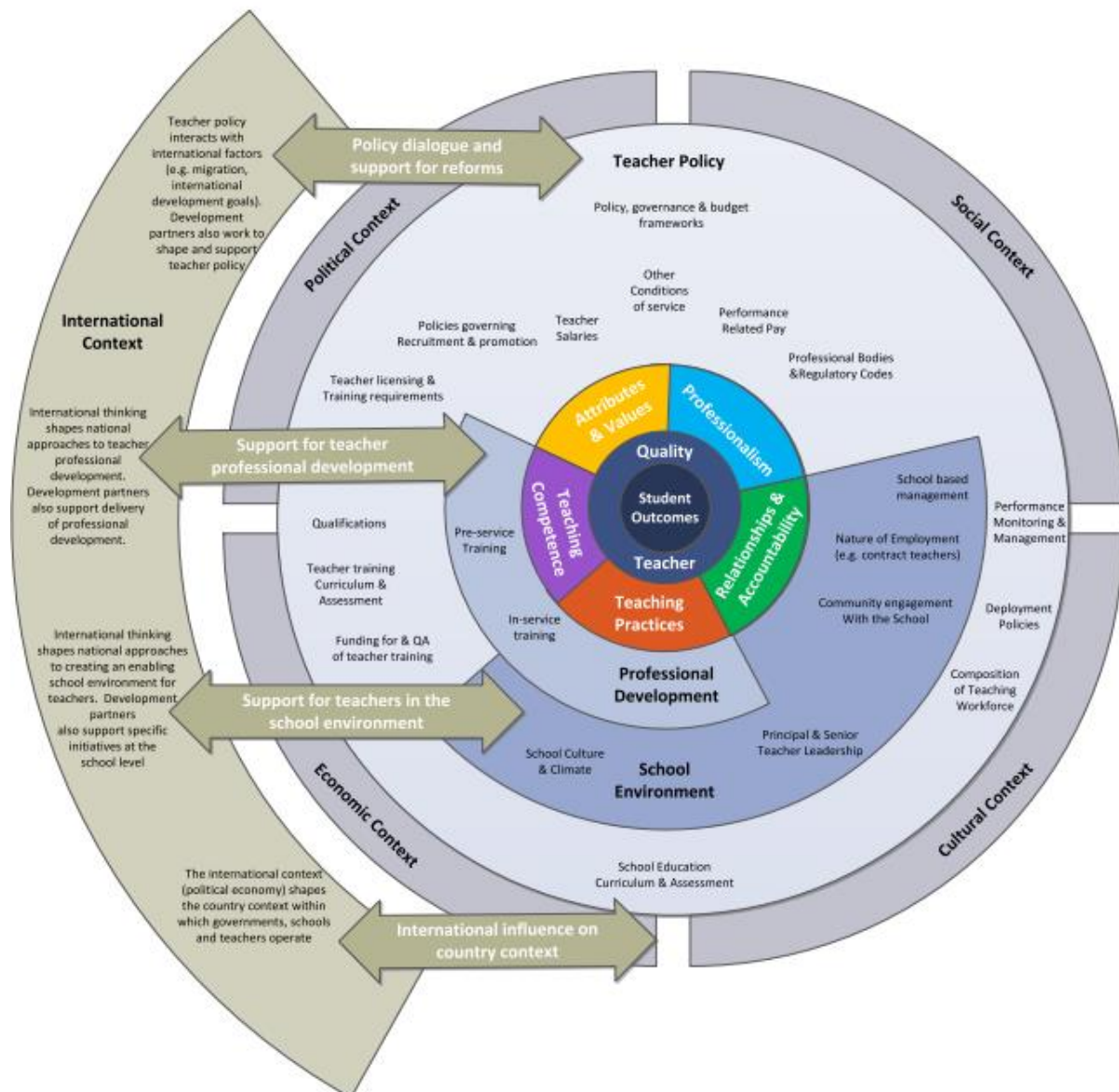
As seen, current notions of quality education gather ideological and evidence-based components that arguably affect how education policy, including conceptions of 'good teacher' and how to

improve indicators of educational effectiveness, are operationalised. Since teachers are central to the matter of schooling, and mainly, students' learning, various models of teacher quality have been put forward to demonstrate the multiple factors and layers converging in the development of quality.

### *3.3.1 Naylor and Sayed (2014) conceptual framework of teacher quality*

A review of the literature (Naylor & Sayed, 2014) posits the following model of teacher quality (see **Figure 3.3**). The model suggests that teacher quality is the result of several influences, for instance, the outer layer refers to the international bodies or organisations that interact with the national realms, such as policy, economy, society and culture. The internal areas of the model are to show the political ambience related to the teachers' work, which inevitably interacts with pre-service and in-service teacher education. In the context of these somewhat cyclical influences between the parties, the teachers' workplace is also impacted. All components together provide a wide-perspective of how teacher quality takes a form; at the same time that makes it evident how challenging it can be to assess quality teaching.

Figure 3.3. Conceptual Framework: teacher quality and the factors that influence it.



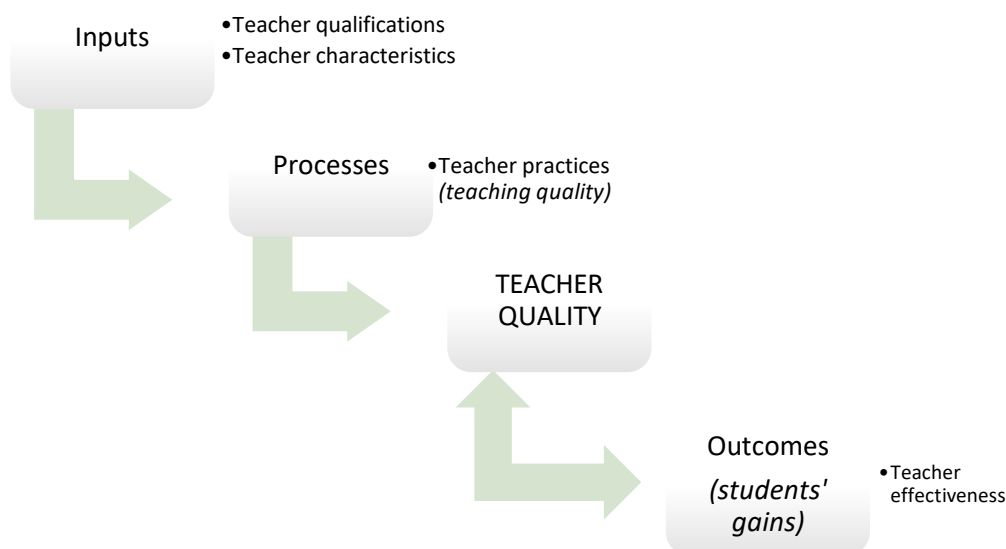
Source: Naylor & Sayed (2014, p.22).

### 3.3.2 Goe (2007): teacher quality as inputs, processes and outcomes

The scope of this research addresses some of the inner circles in Naylor and Sayed's (2014) conceptual framework during the discussion of findings in Chapter eight. However, to investigate MTE in a more meaningful manner, given the focus on indirect forms of teacher classroom performance (see section 2.7.2), a meta-review of the literature will be explored next (Goe, 2007).

Goe (2007) found that teacher quality has been traditionally studied at three levels: inputs, processes, and outcomes (see **Figure 3.4**). In this conceptual framework, inputs are a series of teacher qualifications and characteristics, which are more or less static (Steinberg & Sartain, 2015). Processes are classroom-related practices, and outcomes are the results of classroom interactions (Goe, Bell, & Little, 2008).

**Figure 3.4. Conceptual framework: teacher quality and components.**



Source: adapted from Goe (2007).

As shown in the diagram above, while teacher quality gathers various aspects related to the teachers' inputs and processes, teacher effectiveness is concerned with the effects of teachers' characteristics and processes on students' results, especially progress or value-added in standardised tests (Goe et al., 2008; Thomas, 1998). Other scholars, mainly from the EER traditions, depict effective teachers as quality teachers (Scheerens, 2015). Therefore, in the diagram, a double arrow indicates two broad ways to understand teacher quality: one that is concerned with inputs and processes as in MTE, and the other as a synonym of teacher effectiveness, as measured by

student value-added progress. This latter case will be critiqued in the light of the literature in section 3.3.5.1.

In MTE for entry to the service, only input teacher characteristics, e.g. general content knowledge, and years of experience in the case of candidates to a head position were considered. Differently, in MTE for retaining the post, inputs and processes were assessed, e.g. general content knowledge and indirect evidence of classroom practice. Still, processes are possibly the most challenging aspects to grasp, and a matter of recent study in EER (Muijs et al., 2014; Reynolds et al., 2014; Sayed & Ahmed, 2015a; Scheerens et al., 2003). Again, the impact of teachers on pupils' academic and social development, i.e. students' learning gains, were not part of MTE.

In the subsequent sections, the theoretical and empirical research on teacher quality considering inputs, processes and outcomes as framed in Goe (2007) will be examined. Most commonly, existing research addresses inputs, processes and outcomes with regards to indicators of teacher effectiveness. This review will refer to evaluation instruments used in MTE as relevant.

### *3.3.3 Teacher quality considering inputs*

Teacher qualifications, such as credentials, years of experience, and other attitudinal characteristics, have been one manner of quantifying the quality of teachers or their potential effectiveness. In this section, the evidence on degrees, years of experience, and teacher knowledge in standardised tests about teacher effectiveness will be reviewed.

#### *3.3.3.1 Degree types and postgraduate degrees*

Existing research in the USA context using VAM indicates that the effect of holding a postgraduate degree, e.g. masters or PhD is negligible and, in some cases, adverse when measuring teacher



effectiveness (Chingos & Peterson, 2011; Clotfelter, Ladd, & Vigdor, 2007; Cowan & Goldhaber, 2015; Croninger, Rice, Rathbun, & Nishio, 2007). Various examples are provided. Using the Early Childhood Longitudinal Study dataset from the USA, and hierarchical linear modelling, the study of Croninger et al. (2007) in elementary schools found that while no impact in reading could be reported, teachers holding postgraduate degrees exerted an adverse effect on mathematics. However, having a degree in elementary education was positively and significantly associated with students' gains in reading scores (*ibid*). These findings suggest that having pre-service training related to the level of education in which the teacher works matters. Moreover, the difference in teacher effects between reading and maths might relate to the emphasis given to literacy in elementary school. However, new knowledge acquired via postgraduate degrees among elementary teachers may not be relevant or be of such low quality that its contribution to teacher effectiveness is inconsequential.

Clotfelter and Vigdor (2007), who studied a 10-year North Carolina database, found a negative effect in both maths and reading students' results from the elementary school regarding advanced teacher degrees. Similar reasons to those presented in Croninger et al. (2007) study are posited in the discussion of such somewhat counterintuitive findings. Moreover, Chingos and Peterson (2011) did not find significant differences in effectiveness between teachers with a degree in education and those coming from a different field. They also investigated whether graduates from selective universities in Florida were more effective teachers than others from less selective institutions, finding non-statistically significant differences when controlling for student-level factors.

MTE does not consider teacher degrees as part of the evaluation criteria; however, recent research found that candidates to a headteacher post with a masters degree or a PhD were significantly more likely to get the position as compared to someone with a Bachelors degree (Ruiz, 2018).

Nevertheless, those findings do not provide further data on whether these new school leaders are competent managers or the perceived preparedness to perform effectively in their new duties. This study provides some answers to those caveats.

### **3.3.3.2 *Teaching years of experience***

A study on VAM found that students taught by teachers of 3 to 5 years of experience have larger gains in reading than those taught by less experienced and more experienced teachers (Croninger et al., 2007). Differently, Clotfelter et al. (2007) found that teacher effectiveness increases with years of experience up to 27 years in the service; however, they acknowledge that teachers of 1-2 years of experience provide the largest differentials of effectiveness. Chingos and Peterson (2011) noted a non-linear trend where, after the fifth year of teaching, effectiveness decreases over time. Such evidence consistently shows that more experience does not necessarily mean a more effective teacher, and challenges education policy that embraces teacher salary increments according to years of experience to reward teacher quality (Chingos & Peterson, 2011).

Sandoval-Hernandez, Jaschinski, Fraser, and Ikoma's (2015) study of teaching experience and achievement in mathematics using the International Association for the Evaluation of Educational Achievement's (IEA) Trends in International Mathematics and Science Study (TIMSS) 2011 Grade 4 database concluded that:

There is no simple, universal relationship between teacher experience and student achievement. In many education systems the students of more experienced teachers achieve better than the students of less experienced teachers; however, in other systems the opposite pattern was found (p. 1).

Although Sandoval-Hernandez et al. (2015) used correlations and not VAM, their findings suggest that the characteristics of the context (i.e. country), including education policy, influence the way input-factors have an impact on achievement. Hence, the study inspires further questions on the role of teaching experience in matters of education policy. For example, the potential advantages or disadvantages MTE entails by dropping the teachers' years of experience as an indicator of teacher quality, as in previous TES (see section 2.4). This research sheds new light into such an aspect of education policy.

### **3.3.3.3 *Teacher pedagogical and content knowledge***

A review on the relationship between teacher knowledge and students' gains revealed that research is scarce, but that existing studies suggest that pedagogical knowledge is more critical than content knowledge for effectiveness (Guerriero, 2013). Still, the use of standardised teacher tests to appraise knowledge and skills for the profession is critiqued because '[teacher testing] present[s] a narrow view of teaching that so oversimplifies the nature of teacher decision-making' (Darling-Hammond, 2001, p. 15). Although there are examples where teachers sit an exam as part of the entry to ITE, as in the United Kingdom (UK) and Mexico, or to access salary and professional career rewards as in the USA, Chile and Mexico (Cortez, Thomas, Tikly, & Doyle, 2018), teacher testing has some limitations. For instance, standardised exams can collect data on teachers' content knowledge and some other cognitive skills but explain little about the pedagogy of the individual and cannot address contextual differences accurately (*ibid*). In some cases, such as in the USA and Mexico, hypothetical scenarios have been thought as an equivalent of actual everyday classroom practice and included in standardised teacher tests to assess pedagogy (Darling-Hammond, 2001; DOF, 2016b). Nevertheless, such attempts remain insufficient to address the complexity of teaching (Murphy, 2013).

No literature was found that supports the use of teacher testing solely as an appropriate measure of teacher effectiveness. However, it is not discarded as part of a multi-instrument TES (Murphy, 2013).

In the view of the OECD, teachers' inputs, e.g. credentials, years of experience, and academic and content knowledge mastery are insufficient to cover the characteristics of quality teachers, and posits the following:

The teacher characteristics that are harder to measure, but which can be vital to student learning include the ability to convey ideas in clear and convincing ways; to create effective learning environments for different types of students; to foster productive teacher-student relationships; to be enthusiastic and creative; and to work effectively with colleagues and parents (OECD, 2005, p. 2).

Such assets relate to the processes or teaching quality, which will be reviewed in the following section. For now, it is appropriate to agree that 'given the limited evidence on the relationship between the static dimension of teacher human capital and student achievement, it is no surprise that policymakers' and school leaders' ability to identify high-quality teachers at the time of hire is limited' (Steinberg & Sartain, 2015, p. 538).

#### *3.3.4 Teacher quality considering processes*

This section addresses teaching processes which can provide data on the quality or effectiveness of teachers. A recent review of the literature (Cortez et al., 2018) identified standard methods for this purpose, such as classroom observations, teacher interviews by colleagues or authorities, teacher testing, peer assessments, teacher portfolios, review of classroom learning evidence, parent and student surveys, and teacher self-assessments. In MTE for retaining the post, education processes were addressed indirectly via two assignments concerning lesson planning and students'

work marking. Those MTE instruments will be discussed next, and classroom observations, as one of the most prominent methods in this matter (although not one used in MTE) will follow.

#### **3.3.4.1 Lesson planning in TES**

Guerrero (2013) situates the teachers' ability to structure learning objectives, plan lessons and evaluate learning within the realm of pedagogical knowledge. Assessing the teachers' competence to explain what they do and how they do it provides data on the (mis)match between practice and expectations of performance (OECD, 2013a; Schmelkes, 2015a). For example, in places where the Danielson's Framework for Teaching (FFT) is used as part of a TES (see section 3.4), the teachers' lessons plans are scrutinised according to a series of rubrics. The National Board for Professional Teaching Standards (NBPTS) in the USA is another example of the use of lesson plans for teacher assessments (NBPTS, 2017). In Chile, the lesson plan is part of the teachers' portfolio, and together with classroom observations, it is considered a good predictor of teacher effectiveness (Taut et al., 2014).

This method has also been used in tandem with the Tennessee Value-Added Assessment System (TVAAS) to locate effective teachers and distribute them to the most challenging schools in the district (Tucker & Stronge, 2005). In general, lesson plans are used to verify that teachers come prepared to the classroom. Still, there are limitations as well, as it requires agreed on criteria of valid evidence of teaching quality, and extensive training on the part of evaluators when used in TES (Martínez Rizo, 2016). Furthermore, teachers might disagree with a given result arguing lack of consideration of context, as it occurred with MTE (INEE, 2016b). Finally, when lesson plan evaluation has consequences for the teachers' job, teachers may decide to invent ideal lesson plans and homogenise formats in schools to avoid negative judgement. Such a phenomenon has been

documented in the UK following inspections by The Office for Standards in Education, Children's Services and Skills (Ofsted) (Perryman, 2014).

#### **3.3.4.2 *Students' work in TES***

Commonly, this teacher assessment method is found in the form of classroom artefacts, e.g. learning evidence productions, teaching materials, notebooks, among others. There is limited research to establish the validity and reliability of this approach to examine teacher quality. Nevertheless, current knowledge suggests a link between these measures of quality practice and students' gains (Goe et al., 2008). The method is considered feasible as part of TES because classroom artefacts are already available for assessment, which reduces the burden on the teachers and the risk of potential simulation. However, similar to lesson plans, the evaluation would require extensive training and further research to establish the suitability to make judgements on the teachers' classroom practice (Coe, Aloisi, Higgins, & Major, 2014; Goe et al., 2008).

In MTE, this evaluation instrument was implemented differently to existing records in the literature given that teachers had to select some learning products and justify via a written assignment how they chose and marked such students' work. As in other research, educators tend to find it challenging to determine which products are the lowest, middle and highest quality and to learn from it how such activity demonstrates anything about their quality or effectiveness, and how to improve it (Perryman, 2014). Likewise, as important as the artefacts, it is the situations and the meanings surrounding particular learning evidence at the time of collection for assessment purposes (Harlen, 2004).

### 3.3.4.3 *Classroom observations*

As the most prominent instruments in the assessment of teacher classroom practice (Goe et al., 2008), the advantages and downsides of the method are examined. Concerning the pros, classroom observations are typically associated with the formative appraisal of a teacher's competence, and hence, are well-received by teachers (Jiang, Sporte, & Luppescu, 2015; Kane, Kerr, & Pianta, 2014; Martinez et al., 2016; Tuytens & Devos, 2009). Nevertheless, instrumentation of observations for teacher review requires multiple visits and at least two surveyors to reach valid and reliable judgements (Kane et al., 2014). Therefore, the method becomes costly and burdensome logistically speaking (Martínez-Rizo, 2012). Issues of the validity of the protocol that is, whether the instrument can measure what it aims to, and the degree of inter-rater reliability or the extent of agreement between two or more evaluators are elements for consideration (Lavigne, 2014).

In a review of the literature of classroom observation models internationally (Martinez et al., 2016), it was found that these practices differ across contexts in several aspects. For instance, in Chicago, the observation is differentiated depending on the seniority of the teacher, but in Chile, it is equal for all participants. Whether the observer is an external or an internal to the school varies, and the extent of announced and unannounced visits also differs. Martínez et al. (2016) noted that in places such as Singapore and Japan, lesson observations aim at uncovering how teachers develop the whole of the child, e.g. mind and heart. However, in the USA models, the focus is on the structural aspects of teaching, such as time on task, classroom management, etc., which are areas where EER has provided extensive insight. In that sense, it is appropriate to think of classroom observations as a method that can be adapted to different purposes, and that it is subjective.

Although classroom observations may be depicted as a direct review of teacher practice, the method can also become an indirect form of appraisal when lessons are videotaped and analysed at a different location. Usually implemented in this way to cut costs, videoed observations can seriously affect the validity of conclusion given the disarticulation of the phenomenon from the settings where it takes place (Cortez et al., 2018). Gargani and Strong (2014, 2015) who developed the Rapid Assessment of Teacher Effectiveness (RATE) would disagree, as they claim that by

Using a six-item rubric after 4 hr of training, raters were able to identify effective teachers from just 20 min of one lesson as well or better than raters using popular evidence-based instruments with 10 times the items (Gargani & Strong, 2014, p. 389).

In contrast, Gabriel and Allington (2012) argue that classroom observation protocols can be value-laden formats that depict good or effective teaching in ways that lack a sense of context. Because when tick-boxing indicators are prioritised over the grasping of teacher-student interactions, and the meaning of the teaching and learning phenomena — as in standardised observation protocols — the method loses its formative, developmental purposes (Gabriel & Allington, 2012). Observations conducted by Ofsted in the UK have aimed at grasping those latter teacher behaviours; most recently, a new observational protocol exploring indicators of performance concerning curriculum, teaching and behaviour has been piloted (Ofsted, 2019).

Research on teacher effectiveness using data from a high-stakes TES in Chile concluded that ‘the portfolio instrument, which is based on direct classroom evidence, correlated more strongly with value-added teacher effects than superintendent, peer and self-assessments’ (Taut et al., 2014, p. 65). In short, measurement of teacher quality in terms of processes is concerned with how well an educator displays a series of behaviours, e.g. as in standards and frameworks (see section 3.4) via various classroom-related data collection methods. While some TES stop at this point, such as MTE,



other cases couple data regarding classroom performance, teacher and student contextual data and VAM (Kane et al., 2014; Wright, Horn, & Sanders, 1997). The following section addresses teacher quality as students' gains.

### *3.3.5 Teacher quality as students' gains*

#### *3.3.5.1 A critical review of students' growth as references for teacher effectiveness*

For decades, students' raw or unadjusted results in tests were used to judge the effectiveness of education institutions (Goldstein & Spiegelhalter, 1996; Reynolds et al., 2014). Such measures are less fair than VAM to judge progress because they lack data on the students' prior attainment, and other background and contextual characteristics (OECD, 2008; Sammons, 1999b; Thomas, 1998). VAM has been intermittently but widely used in the US and the UK, mainly, for teacher and school accountability respectively (Goldstein & Spiegelhalter, 1996; Mortimore et al., 1994; Thomas, Peng, & Jianzhong, n.d.). Its connection with teacher effectiveness inquiry is straightforward because 'student learning outcomes, including student results in standardised assessments, are an appealing measure to assess teaching performance since the ultimate goal of teaching is to improve student learning' (OECD, 2013, p. 35).

As mentioned in section 3.2.3, EER is concerned with students' value-added progress, but also with the classroom phenomena and contextual factors that are associated with education effectiveness (Reynolds et al., 2012; Scheerens, 2015). Therefore, recent approaches to teacher quality as understood in the context of teacher effectiveness concluded that a combination of students' gains data, as well as classroom observations and student surveys, can provide more robust estimates on the students' outcomes (Kane & Douglas, 2012, p. 60).

Nevertheless, VAM have received criticism in various respects. First, there is a concern about the risk of teaching to the test and narrowing the curriculum to what can be evaluated in standardised assessments (Sahlberg, 2011; Santiago, McGregor, et al., 2012; Taut et al., 2011). Similarly, 'standardised tests do not include all contents, skills and educational objectives that would need to be measured. Besides, testing is only feasible in some subjects and grades, and even when testing is feasible, there is a lack of tests that are vertically scaled from year to year' (Taut et al., 2014, p. 55). These issues reflect the already mentioned concerns about the scope of standardised testing in contrast with a perception that school education has an impact beyond measurable knowledge, skills and attitudes.

VAM estimates have also been suspected of instability, primarily when implemented in short cycles, e.g. every year, (Darling-Hammond, Amrein-Beardsley, Haertel, & Rothstein, 2012; Sørensen, 2016). This generates concerns, especially in contexts where stringent policies result in the dismissal of teachers and the closure of schools that are considered underperformers. Furthermore, in TES with high-stakes consequences, those held accountable for the results will tend to find ways to overcome negative categorisation of their performance in subsequent assessments (Goldstein & Spiegelhalter, 1996; Urrutia de la Torre, 2015), for example, via simulation, and malpractice (Perryman, 2014; Webb, 2006).

Likewise, policies that rely solely upon VAM have been criticised because 'simply receiving an evaluation score does not tell teachers how to improve' (Papay, 2012, p. 133), which does not provide formative help to teachers to address their weaknesses. Similarly, given the specialised quantitative methodology underpinning VAM, teacher agency to justify the practices that, in their view, promote learning is removed. That is, 'teacher educators are left to defend current practice without "scientifically based evidence"' (Imig & Imig, 2006, p. 172). Therefore, judging individual

teachers based on VAM is not recommended, but can be of value when used to inform school performance trends (OECD, 2013b; Sørensen, 2017).

### *3.3.6 Concluding statements on approaches to evaluating teacher quality*

This review of procedures to evaluating teacher quality as theorised regarding its multi-layered nature (Naylor & Sayed, 2014), as well as inputs, processes and outputs (Goe, 2007), offers an array of rationales and examples of teacher performance assessments that have gained prevalence in public policy. Defining teacher quality can be cumbersome; however, assessing it validly and reliably is harder (Isoré, 2009). Most reviewers of TES posit that, ideally, decision-makers should have access to multiple sources of information regarding a teacher's performance, and employ more than one evaluator (Colby, Bradshaw, & Joyner, 2002; Jiang et al., 2015; Stewart, 2013). Nevertheless, too many instruments and viewpoints of a teacher's performance may lead to contradicting information, which complicates interpretation and decision making (Martínez Rizo, 2016).

Furthermore, methods and people, both are active players in the definition and sanctioning of what quality teaching is, and how it can be attested. Hence, Martínez-Rizo (2012, p. 17) posits:

[While] the quality of the information obtained through a structured approach to teaching depends on the underlying conceptualisation of the instruments, the data arising from unstructured approaches is dependent on the quality of the raters.

Teacher quality as a matter of accountability commonly relies on indicators of suitable teaching, and hence, the following section tackles the critical literature concerning standards and frameworks for teaching.

### 3.4 Teacher standards and frameworks

In a review of the literature, Cortez, Thomas, Tikly, and Doyle (2018) defined standards as statements that describe 'what is expected of a teacher's knowledge and performance in their day-to-day teaching, developed for guidance or in order to make a judgement about those teachers' [performance]' (p.25). Frameworks can include a series of standards organised into levels and set the outlines for the teachers' progression from pre-service to advanced skill teaching (*ibid*). Although standards and frameworks can be coupled with TES, their existence might dispense with formal, centrally managed assessments.

For instance, teacher supervisions were one of the first documented modes of monitoring adherence to minimum standards. Marzano, Frontier and Livingston (2011), argue that supervisions were a standard method of teacher quality assurance before teaching was considered a profession in the USA in the 1700s. The following centuries would see supervisions refined by more structured, clinical approaches to assess appropriate instruction, which also served to inform on possible avenues for improvement (*ibid*). In the 1980s, teacher standards and assessments centred on aspects such as punctuality and adherence to the curriculum in that context (Clark, 1993). However, the focus shifted due to the influence of vast scholarship in areas concerned with classroom practice, also known as *the black box* of education (Scheerens et al., 2003). This is because 'a common assumption to most teacher evaluation systems around the world is that classroom practice is the key mediator between education policies and student outcomes' (Martinez et al., 2016, p. 15).

There are several examples of standards and frameworks being implemented in developed and developing countries. These guidelines usually differentiate general teaching practice, as in primary education, and subject-specific practice, which targets secondary school and specialist teachers.

Amongst the most prominent examples of standards in the USA are the NBPTS and the Interstate Teacher Assessment and Support Consortium (inTASC). The NBPTS aims to award accomplished teaching recognition, and the inTASC serves to evaluate classroom performance (Council of Chief State School Officers, 2011; NBPTS, 2017).

Also originated in the USA, the Danielson's FfT is an influential and widely discussed schedule which is used and adapted in the US and other Latin-American contexts such as Chile, Perú and Mexico (*ibid*; Cortez, 2015). The FfT can be utilised to assess generalist and subject-specific teachers because it is deemed to address the commonalities of the profession (Danielson, 2007b). The FfT was part of the Measures of Effective Teaching (MET) project sponsored by the Bill & Belinda Gates Foundation (Kane et al., 2014) and includes detailed rubrics which guide teacher performance assessments through its four core domains: planning and preparation; the classroom environment; instruction; and professional responsibilities (Danielson, 2013). Researchers investigating the relationship between teachers' scores in an adapted version of the FfT and students' VAM in Kentucky, USA, argue the domains reflect the fundamentals of effective teaching. Thus, they proposed that such standards should be part of ITE and professional development programmes (Muñoz & Dossett, n.d.). An example of the FfT can be consulted in Appendix 6.

Another example is the Australian standards, which are meant to represent appropriate professional teaching knowledge, practice and engagement at different stages of an educator's career. These standards are the base for an Australian teacher accountability system via a Teacher Performance and Development Framework (Cortez et al., 2018). Teachers are 'classified as *Graduate* on entry into the profession, followed by *Proficient*, *Highly Accomplished* and finally, *Lead*' (Clinton & Dawson, 2018, p. 314). In the UK, a similar tradition prevailed until 2012, when a threefold-standards corresponding to the different stages of a teachers' career was replaced by a

single set of standards (DfE, 2011). For more insight into standards and frameworks for teaching internationally, please refer to Cortez et al. (2018).

### *3.4.1 Critiques of teaching standards and frameworks*

The critiques concerning the emergence of standards and frameworks as screening devices of teacher professionalism posit that making educators adhere to guidelines and codes of practice is detrimental to freedom, creativity, and development (Johnston, 2015; Sahlberg, 2006). Furthermore, educational phenomena not included in such parameters, mainly those that would be difficult to quantify, such as teacher-student rapport building, and those that are not collected due to time and methodological constraints will most likely go unnoticed (Martínez-Rizo, 2012; Tucker & Stronge, 2005). An example of this is the multi-layered nature of teacher quality as seen in sections 3.2.3 and 3.3.1, which TES can approach but not in all its components. The response of the EER has been to tackle the multilevel essence of school education via mixed-methods research, which means that in recent studies, quantitative and qualitative data are collected (Reynolds et al., 2014). Still, this body of knowledge concurs that the quality of teachers matters for educational improvement (Barber & Mourshed, 2007; Muijs et al., 2014; OECD, 2005).

TES typically are grounded or refer to teacher standards or frameworks as a means to tackle issues of quality. National and district TES use a myriad of approaches to monitor and inform development alternatives to the teacher workforce, as it is the case of MTE. Therefore, the following section addresses the relevant literature in this matter.

## **3.5 Teacher Evaluation Systems: a response to low-quality education**

While standards and frameworks for teaching are indicators of suitable performance that teachers should aim, in a growing number of contexts, TES are trusted as appropriate methods to enhance

levels of teacher quality. According to Papay (2012), and Hallinger, Heck and Murphy (2014), TES are grounded in the so-called theory of action, 'the theory of action holds that evaluations can improve instruction both by providing incentives for teachers to work hard (systemic improvement) and by removing the least effective teachers from the district (selection)' (Papay, 2012, p. 128). However, whether evaluating teachers *per se* leads to improvement is a highly contested matter (Santiago, Mcgregor, et al., 2012; Stewart, 2013; Tuytens & Devos, 2013). In the USA, there is sufficient experience with TES that shows that removing a few underperformers would barely change an education system's culture (Lavigne, 2014; Papay, 2012). Furthermore, research related to the NBPTS revealed that although the certification can detect effective teachers, the evaluation does not augment teacher effectiveness (Chingos & Peterson, 2011; Goldhaber & Anthony, 2007).

Yet, TES are popular because teacher assessments can be used for different purposes. For instance, an international survey of 28 countries revealed that 22 of them have at least one form of teacher evaluation (OECD, 2013b), including, for probation, performance management, registration, regular appraisals, promotions, and reward schemes (OECD, 2013b, pp. 11–12). The OECD, as a leading advocate for TES, recommends that monitoring teachers throughout their career is crucial for locating the areas that require intervention (OECD, 2005). This last point relates to TES for teacher development and improvement. In that sense, 'recognising and rewarding effective teaching, and ensuring that teachers have the resources and support they need to meet high expectations' (*ibid*, p.9) is recommended. Still, the OECD acknowledges that teachers are usually self-motivated individuals whose morale is fuelled by rationales close to doing good to others, rather than based on monetary motives.

Contrarily, there are examples where TES no longer exist, but where good quality education prevails, for instance, in Finland:

External review of teachers' performance was abolished in early 1990s. Thus, as most Finnish teachers will tell you, they are free to focus on developing understanding, fostering an interest in learning and cultivating open trust-based relationships between teachers and students (Sahlberg, 2006, p. 282).

Sahlberg (2011) believes that this is an era of global reform in which the focus of policy has changed; nowadays, learning and not teaching is what matters the most. Paradoxically, teacher accountability seems to be the policy priority that promises better student outcomes (Lavigne, 2014). In that sense, teachers are seen as agents of positive societal changes, and suitable for control all at once (Sørensen, 2017; Sørensen & Robertson, 2019). Although 'teacher evaluation is not the holy grail or an alchemists stone' (Stewart, 2013, p. 21), the examples outlined below provide evidence on the positive consequences of TES on the teachers' work.

### *3.5.1 Evidence on the positive impact of TES for teaching improvement*

The literature posits a series of positive effects of TES on teachers in various ways. For example, regarding the NBPTS in the USA context, it is argued that teachers who participate in it reflect on their actions and their students' learning based on the professional standards (Darling-Hammond, 2010). Likewise, NBPTS participants express better planning of their teaching, including enhancement of content knowledge (*ibid*). In Chile and Mexico, different studies have identified TES has led to more teacher gatherings aimed at addressing and responding to teacher assessments, which might foster professional conversations for improvement (OREALC/UNESCO, 2016; Taut, Santelices, Araya, & Manzi, 2010). For Darling-Hammond (2010), TES may incite



teacher preparation programmes to be responsive to standards requirements for certification or licencing.

Still, the positive impact of TES on teachers may be tempered by the implications that teacher assessments entail for the job. For example, a study of teacher effectiveness using data from the low-stakes Cincinnati TES and measures of students' gains, found that participants in the evaluations became more effective during the year of the assessment and that effectiveness lasted for the following years (Taylor & Tyler, 2012). However, the researchers acknowledge that the developmental nature of the TES might have fostered a commitment to the assessment rather than resistance, potentially leading teachers to develop knowledge and skills related to the evaluation. In that sense, 'it is not valid to transfer the results from studies or experiments without "consequences" for the job to other contexts where high-stakes consequences apply' (Rockwell, 2015, p. 5). Thus, MTE deserves tailored investigation into its strengths, weaknesses and non-intentional potential implications.

### *3.5.2 Formative, and summative consequences of TES*

There are two primary purposes of TES: 1) to inform and help teachers improve their teaching performance (i.e., formative evaluation); and 2) to judge their performance for accountability purposes including rewards and sanctions (i.e., summative assessment) (Delvaux et al., 2013; Isoré, 2009; Papay, 2012; Scheerens et al., 2003). It is possible to find examples entirely concerned with formative appraisal in Scandinavia and Japan (see, for example, Cortez et al., 2018). The most common examples of formative consequences are in the form of targeted teacher feedback for improvement, and related professional development opportunities. The research literature on teachers' perspectives about TES with developmental implications often shows that educators are open to the introduction of these kinds of policies (Jiang et al., 2015; Tuytens & Devos, 2009).

Feedback provision must be contextualised, so this makes sense to those who receive it, and allow reflection on three main regards: 'Where am I going? (What are the goals?), How am I going? (What progress is being made toward the goal?), and Where to next? (What activities need to be undertaken to make better progress?)' (Hattie & Timperley, 2007, p. 86).

Some scholars have urged a combination of formative and summative consequences (Darling-Hammond, 2001; Guerra & Serrato, 2015; Tucker & Stronge, 2005), and MTE fits within this category. However, others have claimed that TES that integrate both targets at the same time are ineffective (Callahan & Sadeghi, 2015; Marzano, 2012; Popham, 1988); mainly because '[...] its formative function contaminates its summative function, and vice versa' (Popham, 1988, p. 271). Thus, leading to policies that 'neither remove, nor improve teachers' (*ibid*). Likewise, Marzano (2012, p. 14) contends that 'an evaluation system designed primarily for measurement will look quite different from a system designed primarily for development'. Alternatively, some claim that it is the way evaluation results are used, which gives TES its character (Marzano, 2010). That is, evaluation instruments are not of one type or the other, but the consequences attached to them are what defines TES's purpose(s).

Depending on the consequences of the TES, teachers can either resist the reform, be happy with it, or comply without real commitment (Ávalos & Assael, 2006; Jiang et al., 2015; Martínez Rizo, 2016). Similarly, where a values dissonance occurs between what is proposed by TES and the teacher's self-sense of a mission, resistance is more likely to happen (Jiang et al., 2015; Tuytens & Devos, 2009). Given that MTE combines formative as well as summative consequences is an area that deserves targeted investigation to shed light on its (un)suitability as an approach to teacher evaluations in Mexico. Moreover, the unintended consequences of TES are essential to consider,

especially when high-stakes consequences are part of the assessments as it is likely that MTE also presents some of these caveats.

### *3.5.3 Unintended consequences of TES*

Policy enactment is inexorably linked to expected and unexpected effects. These latter effects, namely unintended consequences refer to positive or negative impacts that policymakers could not foresee at the enactment stage of policymaking (Aguilar & Richerme, 2014; Brady, Duffy, Hazelkorn, & Bucholz, 2014). Among the most common unintended consequences of TES is teacher burnout, which usually happens when there are high-stakes consequences for the teachers' job linked to the assessments (Lavigne, 2014). Moreover, TES can be considered unfair; for instance, when the performance of educators who are discharged is not different from those who remain in teaching posts (Lavigne, 2014). Therefore, TES must be grounded in fair, valid and reliable mechanisms because 'valid inferences are not possible without good measures' (Donaldson & Papay, 2014, p. 188).

Also, high-stakes consequences may lead effective teachers to leave the profession early, and teachers deemed ineffective being replaced by new ones of whose effectiveness is unknown (Lavigne, 2014). Numerous examples of state and district policies on teacher evaluation in the USA indicate a growing emphasis on teacher early departure based on low performance (Donaldson & Papay, 2014). These policies may also negatively affect the number of candidates to ITE programmes because people ponder whether they will be subjected to assessment with terminating consequences once in the job (Lavigne, 2014).

Too much emphasis on the summative consequences of TES may rather than motivate teachers to enhance their practice collaboratively, segregate and foster competition which does not help to

improve indicators of quality (Hallinger et al., 2014; Stewart, 2013). Finally, TES that integrate these kinds of consequences cannot disregard that the higher the stakes, the more reasons teachers will have to *game the system* (Donaldson & Papay, 2014; Goldstein & Spiegelhalter, 1996). Drawing on Ball's notion of *fabrication* (Ball, 2003), Webb (2006) case studies in the USA context document how teachers have mastered the generation of behaviours and evidence of acceptable performance to survive the judgements from TES. This, in turn, may distort the original aim of teacher development and school improvement (*ibid*), and shows that TES implementation is far from a secure enterprise. Should these unintended effects of TES be an undergoing issue, is also a matter of research interest this study tackles.

#### 3.5.4 Concluding statements on TES

TES have been put forward as suitable methods to improve indicators of quality education by monitoring the quality of teachers, as understood under teacher standards and frameworks. Academics and IOs recommend having working definitions of quality education and teachers/teaching; also, a set of standards or frameworks for teaching to facilitate the design of evaluation instruments appropriate to the task, and to determine the primary purpose of the TES, e.g., formative or summative targets (Goe et al., 2014; OECD, 2011, 2013a; Santiago, Benavides, Danielson, Goe, & Nusche, 2013). Others go beyond by suggesting that coherence must also exist with the students' learning goals (Darling-Hammond, 2012; Draper, Hofmeyr, & Hohnston, 2017), and the teachers' ITE (Darling-Hammond, 2014; Nusche, Braun, & Santiago, 2014; Weinstein, 2015).

Other scholars have argued that including the teachers' voices during policy formulation is as essential as the coherence expected among all the components previously mentioned (Cortez et al., 2018; Darling-Hammond, 2001; Donaldson & Papay, 2014; Goe et al., 2014; Jiang et al., 2015;

Tuytens & Devos, 2009). It is also maintained that ‘teachers are in the best position to inform this process [and] can discern what will work in their classroom’ (Goe et al., 2014, p. 14). Nevertheless, teachers’ and other stakeholders’ views of which policies work are less regarded, and, in some cases, neglected (Flores, 2011; Ramírez & Torres, 2016; Tornero & Taut, 2010; Tuytens & Devos, 2009). This is the case of MTE, as mentioned in the previous Chapter, and the focus of this research.

To conclude, depending on whether the purpose is formative or summative, TES can lead to actions aimed to correct what needs improvement. There is ample consensus on the necessity of appropriate feedback to the teachers, and most importantly, relevant, useful professional development options offered to them as a product of TES (Callahan & Sadeghi, 2015; Donaldson & Papay, 2014; Papay, 2012). Such an important issue is addressed next.

## 3.6 Teacher Continuing Professional Development

### 3.6.1 *Conceptualising teacher development*

There are conceptual differences and debates between professional development and professional learning. The former term refers to the somewhat passive receiving of information from ‘experts’ to the teachers; the latter concept implies a more active, participatory role of the teacher who engages with and creates knowledge for better practice (Timperley, 2011). For Fraser et al. (2007, p.157 cited in Mitchell, 2013, p. 389) teacher learning processes are the ‘processes that [...] result in specific changes in the professional knowledge, skills, attitudes, beliefs or actions of teachers’. For instance, the learning that happens as a result of a given workshop or seminar. Professional development relates to the ‘broader changes that may take place over a longer period of time’ (*ibid*). That is, the continuous and ongoing improvements that teachers garner throughout a career.

Mitchell (2013), as opposed to Fraser et al., (2007), depicts professional development as ‘the process whereby an individual acquires or enhances the skills, knowledge and/or attitudes for improved practice’ (p. 390). The author dispenses with the element of *time* because the component is highly relative to the circumstances in which teacher development occurs. Particularly in the context of measuring the impact of teacher professional development programmes, it is sensible to recognise that ‘while depth requires time, time should not be taken as a proxy measure for depth’ (Timperley, 2011, p. 5). Too much focus on time-delivery rather than on the quality of in-service teacher training was a downside of CPD provided to Mexican teachers during the pre-reform era (Cordero et al., 2013).

In the 1970s, Richard Gardner coined the term Continuing Professional Development (CPD) as a synonym with teacher ‘learning from courses and learning ‘on the job’ (Leaton, 2005, p. 5). CPD is an umbrella term that encompasses all possibilities teachers utilise to enhance their practice, including formal and informal means (Bubb & Earley, 2008). Therefore, in this research, the most widely used term CPD will be adopted. It draws on a substantial body of literature and refers to the processes aimed at teacher practice improvement via a myriad of formal and informal learning options.

### *3.6.2 Rationales underpinning CPD in education policy and the self*

Teacher CPD is increasingly a joint venture with TES (Vescio, Ross, & Adams, 2008; Villegas-Reimers, 2003; Yoon et al., 2007); and its most elemental reason of being is to amend underperformance. Nevertheless, teacher development has traditionally responded to various policy imperatives. In the view of Collinson et al. (2009) the teachers’ work was absorbed by the knowledge economy narrative which posits that teachers need to develop a series of skills, mainly, continuous learning to respond to rapid changes taking place globally. This need for further

development of the craft which arises from within the individual, but the policy shapes is what Ball (2003) calls *performativity*. In a similar vein, Day and Sachs (2004, p. 4) posit that CPD is instructed 'for the purpose of 'accountability' and 'performativity', and as an intervention in the contexts where pre-service programmes are unable to give student teachers the required skills to begin to teach (Day & Sachs, 2004). Thus, in places where ITE or certifications are issued, it is not expected that teacher education is the only preparation for the job (Bubb & Earley, 2008), but that educators keep up to date about cutting-edge developments in their field, and continue learning (Collinson et al., 2009).

In the broader literature, teacher development has been a topic of academic research since the second half of the twentieth century. For example, in England, teacher CPD gained policymakers' attention following the McNair Report in 1944 (Frost, 2012). Almost thirty years after that, 'the *James Report* of 1972 [...] made "official" the requirements of in-service education for teachers (INSET)' (Hustler, Mcnamara, Jarvis, Londra, & Campbell, 2003, p. 2). However, while in the first wave of teacher development policy the focus was on the development of the teacher, not the practice, INSET targeted the teachers' knowledge and skills necessary for improved teaching (Frost, 2012). Such differences resemble two distinctive approaches on the matter. One of which sees teachers as agents of their craft able to decide what development areas to target, and the other as less active participants of education for whom improvement agendas have been determined elsewhere (see, for example, the study of Hustler et al., 2003). However, these differences also reflect two conventional methods to training teachers, one targeting the individual, and the other the school staff. Both forms will be further reviewed in this Chapter (in sections 3.6.5 & 3.6.6).

One main difference noticeable between CPD in Mexico and other contexts has been the prevalence of in-service teacher training targeting the individual teacher for the most of the

twentieth century, and its use to regularise differing teacher credentials arising from prior teacher education policies (CREFAL, 2017; Espinosa, 2014; IEESA, 2012). In the view of Day and Sachs (2004), in-service teacher training is a response to a perceived deficit in the teachers' knowledge, skills and dispositions. Still, since CPD does not always lead to improvement (Guskey, 2002, 2013; Timperley, 2011; Timperley et al., 2007), two rationales are posited to understand teacher development ineffectiveness: '(1) what motivates teachers to engage in professional development, and (2) the process by which change in teachers typically occurs' (Guskey, 2002, p. 382). Current knowledge identifies three main rationales of teachers to join CPD; these are to do a better job, to reach a better job position, and for satisfaction (Guskey, 2002), which all may co-exist in the Mexican context. Therefore, the next section presents two models to explore teachers' perspectives on CPD for classroom practice improvement.

### *3.6.3 Theoretical approaches to teacher and student learning*

A point of agreement in the literature suggests that teachers are adult learners who can positively impact their students' learning by changing their practice following CPD. Two meta-reviews of the literature have purported theoretical models that explain how teacher learning occurs.

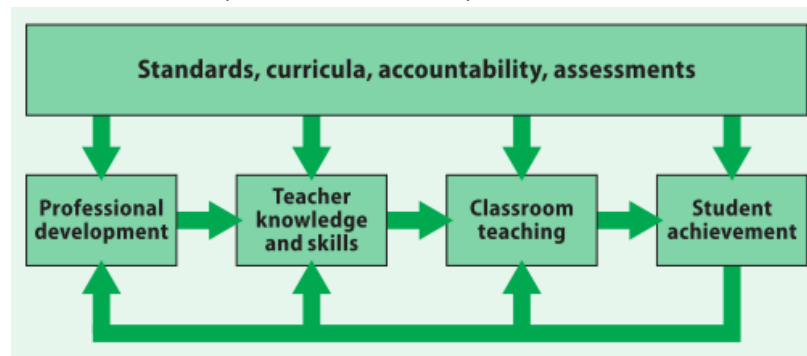
#### *3.6.3.1 Yoon et al. (2007) model on how teacher professional development affects student achievement*

The study of Yoon et al. (2007) sought to evaluate the quality of research that explored the impact of teacher CPD on the students' outcomes. The authors put forward the following model in **Figure 3.5**. In their view, the relationship appears somewhat linear. Professional development improves teachers' knowledge and skills; subsequently, classroom teaching is enhanced, and the students' achievement gets benefited. Also, the model acknowledges the role of external pressures to these processes, such as the role of education policy. Furthermore, it is argued that student achievement



feedback all previous stages of the model. Although useful, the model lacks further insight into how professional development happens, and why it does not occur as planned in some instances. Therefore, the following section presents an alternative to Yoon et al. (2007) review.

**Figure 3.5. How teacher professional development affects student achievement.**



Source: Yoon, et al. (2007, p. 4).

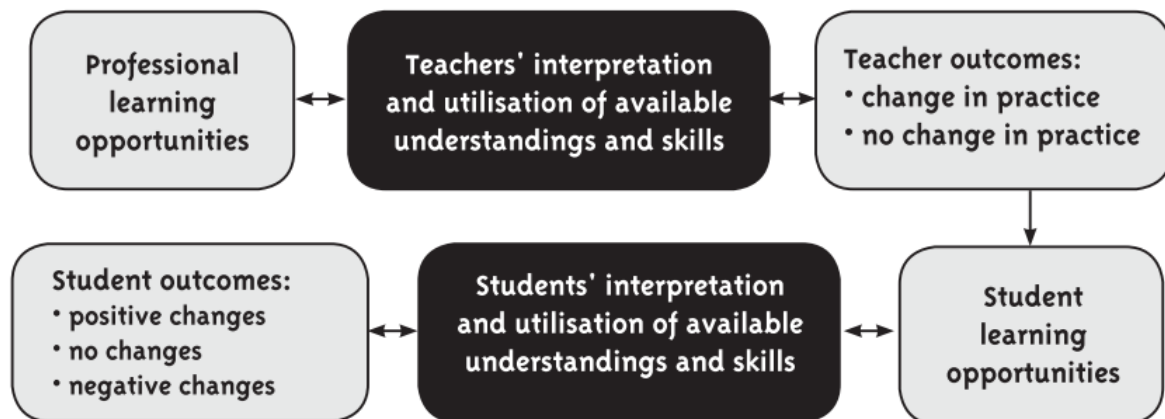
### 3.6.3.2 *Timperley et al., (2007) Framework for analysing the effectiveness of professional learning experiences*

Timperley et al. (2007) propose a teacher and student learning model (see **Figure 3.6**) where teachers and students drive processes of interpretation and decision within what they called ‘black boxes’ (ibid, p. 7)<sup>17</sup>. This framework implies that individuals decide whether, as a result of a given learning opportunity, changes to their preconceptions happen or not. In this respect, the literature has shown that while some individuals may decide to change, others will not make any changes (Guskey, 2002). These ideas build upon cumulative theoretical and empirical research that demonstrates that changes in the teachers’ beliefs and behaviours because of the implementation of CPD is not straightforward. It requires adaptation, testing, and time (Frost, 2012).

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<sup>17</sup> Timperley et al., (2007) also acknowledge the role of context; however, this part of the model was highlighted to illustrate the differences with Yoon et al., (2007) model.

Figure 3.6. The black boxes of teacher and student learning.



Source: (Timperley et al., 2007, p. 7).

This model is useful to illustrate the back-and-forth decision-making of two independent individuals, i.e. the teacher, and the student. In other words, learning is dynamic and intertwined; it concerns the student, as well as the teacher. In the context of CPD pre-reform and after MTE, the model provides a useful reminder that the ultimate decision to change rests on the individual teacher, and that these decisions are pragmatic (see philosophical approach in section 4.2.1). There are no straightforward answers as to why and how teachers' learning occurs; however, Timperley (2011) suggests that:

The influence of professional learning on teaching depends on how teachers interpret the understandings and use the particular skills made available through the professional learning opportunities. Much depends on their prior knowledge and professional orientations (p.71).

The framework by Timperley et al. (2007) was preferred over others, such as the CPD model proposed by Yoon et al. (2007), for three reasons. 1) this model acknowledges that teachers make decisions about learning and that these decisions can be conscious (Harris et al., 2006), which was

essential for informing the focus on teachers' perspectives in the methodology of the current research. 2) teachers' previous experiences are denoted essential in order to understand future dispositions in the use of new knowledge and skills in their practice. 3) framing issues on teacher practice improvement (change) into black boxes does not deny that teacher learning may happen involuntarily, unexpectedly or without a plan (Eraut, 2004; Mitchell, 2013).

An overview of various forms of teacher CPD and current debates around the topic is reviewed in the next section in order to consider and critique how these aspects relate to CPD in Mexico, particularly in the context of MTE.

#### 3.6.4 *Formal and informal CPD*

For Eraut (2004), the often regarded dichotomous formal-informal is instead a continuum where the far end concerning informal learning 'include implicit, unintended, opportunistic and unstructured learning and the absence of a teacher' (p.250). *Informal* learning then, according to Eraut (2004, p.250), cited in Mitchell (2013, p. 392), can take the following forms:

- Implicit learning – which occurs without a conscious attempt to learn, or an explicit understanding of what it is that has been learned.
- Reactive learning – which takes place in action, in response to a situation.
- Deliberative learning – which is goal-oriented, and includes an element of time allocation.

Nevertheless, there is no harm in suggesting that also *formal* CPD can provoke implicit, reactive and deliberative teacher learning. Therefore, for this thesis, the borderline between one type of CPD and the other will be as follows; *formal* CPD will be understood as the teacher training purposively organised or managed by the State. *Informal* training will refer to the learning opportunities hosted by individual teachers or groups of teachers (e.g., self-directed, teacher-led)

and the one offered besides state provision. The following sections discuss existent literature on collective and individual approaches to teacher CPD.

### 3.6.5 *Collective CPD: Professional Learning Communities and Communities of practice*

There is a growing body of academic research covering the relevance and positive impact of workplace learning (Avalos, 2011). There is nothing that hampers teachers to learn on their own at the workplace; however, the term is often associated with collaborative forms of teacher CPD via Professional Learning Communities (PLC) and Communities of Practice (CP). Stoll et al., (2006) define PLC as '[groups] of people sharing and critically interrogating their practice in an ongoing, reflective, collaborative, inclusive, learning-oriented, growth-promoting way, operating as a collective enterprise' (p. 223). CP are slightly different, 'in brief, they're [sic] groups of people informally bound together by shared expertise and passion for a joint enterprise' (Wenger & Synder, 2000, p. 139). The difference between one and the other lies in whether people gather spontaneously, as in CP, or consciously and fostered by a school leader as in PLC (Mitchell, 2013). While the CP phenomenon might be represented in study groups in preparation for MTE, which are somehow emergent developments (SEP, 2017f), the latter PLC concept aligns with mandatory school staff CPD meetings that Mexican teachers take thirteen days every year (see section 2.8.1).

The two main assumptions of the value of PLCs are that; 1) knowledge is in the day-to-day teacher practice; and 2) engaging teachers will increase their knowledge and the students' learning (Vescio et al., 2008). Contrary to the traditional paradigm where teacher professional development comes from outside, PLC theory proposes that the best opportunities for teacher improvement are in the schools, and the interactions between colleagues (*ibid*). That is, professional development lies in teacher collaboration and reflective professional enquiry (Bolam et al., 2005). This is a shift from

'knowledge FOR practice' to 'knowledge OF practice' (Cochran-Smith & Lytle, 1999, cited in Vescio et al., 2008, pp. 88–89).

The study by Thomas et al. (n.d.) in three Chinese localities found that teacher professional development activities which were fostered in PLCs had a positive impact on students' results when entering higher education. Likewise, a previously quoted study (Croninger et al., 2007) stresses that the effect of teacher professional development on students' output becomes visible once data are aggregated at the school level. This implies that collegiality, and possibly everyday student interaction with several teachers, may be more favourable than what a single teacher can contribute to the students' learning. Relatedly, recent evidence suggests that teacher-centred collaborative interactions to learn, as well as participation in research-based activities, are the most important predictors of students' results in mathematics (Akiba & Liang, 2016).

Likewise, a systematic review of the literature (Cordingley, Bell, Rundell, Evans, & Curtis, 2003) and a follow-up search (Cordingley, Bell, Evans, & Firth, 2005) found evidence that collaborative CPD enables the teacher and student improvement in both academic and non-academic realms. Regarding teachers exclusively, they document this positive impact on two broader areas: implications for teacher behaviour, and affective effects (*ibid*, pp. 5–6). Teachers are deemed to enhance their practice and attitude towards collegiality, while their self-esteem and efficacy are benefited as well (*ibid*). Nonetheless, the reviewers noted that when those favourable scenarios are reported, a complex mix of different training is conflated, which might be costly and challenging to implement for some providers. PLCs require certain leverage on time available for meetings, as well as a degree of agency over matters of common concern for the school, resources of various kinds and excellent support from the school leaders and the wider community it serves (Wang,

2015). Therefore, it is not surprising that PLCs are indeed very productive teacher development spaces, but complex to achieve.

In summary, existing research acknowledges teacher development in groups as having a positive and significant impact on teachers and students in a myriad of outcomes (Cordingley et al., 2003; Cordingley, Bell, Thomason, & Firth, 2005; Thomas, Peng, & Triggs, 2017). Thus, in this research, it is essential to explore the teachers' perspectives on how MTE influenced the opportunities for collaborative forms of CPD and the impact it has on the practice. The next section addresses CPD targeted to the individual teacher to consider and critique existing evidence regarding CPD that contributes to practice improvement.

### *3.6.6 Individual-oriented CPD*

In the international experience, one-off workshops, lectures, short-term programmes and conferences are amongst the most popular CPD options provided to teachers formally (Collinson et al., 2009; Harris et al., 2006; Ravela, 2011). Nonetheless, these short-term forms of individual teacher development are usually provided in a cascade fashion and emphasise much on content knowledge, and hence, are not considered as a useful form of teacher CPD (DFAT, 2015; Kennedy, 2016; Naylor & Sayed, 2014). Likewise, much of the success of CPD will depend on the teachers' prior experience with development options, the feedback they get from their students' progress, and many other factors (Firestone, 2014; Fullan, 1998; Timperley et al., 2007). Still, a handful of studies have suggested possible avenues for individual-oriented CPD provision that positively impacts teachers and students' outcomes.

### **3.6.6.1 CPD that improves practice**

In Australia, Ingvarson, Meiers, & Beavis (2005) investigated various programmes aimed at enhancing the teachers' knowledge, practice and efficacy via teachers' self-reports. Their review concluded that the best teacher training programmes are those where the educators had the opportunity to reflect on students' learning needs and benchmark their practice against standards of good teaching. Follow-up and mentoring for the teachers were also considered necessary. As a precondition to success, the authors pointed out the necessity of a minimum level of collaborative work at the schools. Feedback and opportunities to discuss new learning with peers lacked amongst most of the studies covered by Ingvarson et al. (2005); however, they considered these components as essential to teaching improvement as the CPD options themselves.

Collinson et al. (2009) provide a series of examples of training programmes aimed at inducting teachers into the profession. The most comprehensive in this sense is the Scottish programme which links ITE with induction and CPD via a contract whereby NQT are mandated to dedicate 35 hours of training per academic year (*ibid*). The General Teaching Council for Scotland researches to improve the scheme. It has produced reports which feedback on the CPD alternatives offered to the teachers based on their perceived professional needs (Clarke, Pearson, & Robson, 2005).

### **3.6.6.2 Length of CPD and impact on students' outcomes**

A meta-review of the literature (Yoon et al., 2007) analysed nine studies which focused on the effects of professional development on kindergarten and primary students' results in mathematics, science, and reading and English/language arts. This study revealed that 'providing professional development to teachers has a moderate effect on student achievement across the nine studies' (*ibid*, p.9). With an effect size of 0.54, students of teachers in receipt of training would have improved their results by 21 percentile points according to the review. The average CPD delivery

time was 49 hours, and the researchers noted that CPD with less than 14 hours of delivery did not report statistically significant effects. Still, they recognise that gathering quality data on the topic is still in its early days as the studies are methodologically different from one another. Such a matter does not allow firm conclusions on the positive impact of teacher development on the students' output in standardised measures of achievement.

As seen, the study by Yoon et al. (2007) suggested that the length of CPD options may relate to effectiveness. Nevertheless, other meta-reviews of the empirical research indicate that 'program intensity appears to be less effective when combined with prescriptive messages, for instance, but more effective when messages provide strategies or insights' (Kennedy, 2016, p. 972). Time is a valued resource that schools and education systems are not always willing to provide. In this regard, TALIS reveals that CPD conflicting with teachers' work schedules is the most critical reason that deters educators from participating in professional development (OECD, 2014). While in some contexts, teachers are entitled to leave for CPD (see the case of Spain (n.a., 12.07.2016)), in others, such as the Latin American education systems, this might not be the case (Avalos & Assael, 2006).

Nevertheless, Timperley et al. (2007) suggest that giving teachers time and resources for CPD to impact students' output is an idea supported by little evidence. This stance is supported by studies in the USA, where it is reported that CPD is not associated with teacher effectiveness measures via VAM (Chingos & Peterson, 2011; Harris & Sass, 2011). In this sense, it becomes relevant to note that the use of hours of training as a proxy for CPD quality may fail to grasp further information about the characteristics of the CPD in turn, or the way time is indeed spent. This research provides some light on the issue.



Existing research following a statistical approach solely seems limited in addressing the quality of a given CPD option, the rationale underlying teacher motivation to participate, and many other factors that may affect the outcome of the estimation. The situations under which teachers undertake professional development may be grounded on 'personal, financial and family circumstances, the school and Local Educational Authority they work in, and any particular year's Government funding regime' (Leaton, 2005, p.10). Current knowledge from systematic reviews of the literature (Cordingley, Bell, Thomason, et al., 2005) posits that individually-oriented CPD 'offer only weak evidence of their capacity to influence teacher or pupil change' (ibid, p.5). In that spirit, one way of inquiring why some CPD options work while others do not may find the answer in the teachers, in their preconceptions, and their ongoing experience with training. Existing inquiry tackling the impact of CPD on teachers' knowledge, skills, and beliefs is somewhat scarce (Cordingley, Bell, Evans, et al., 2005); therefore, this research is relevant to understand more about those rationales. Furthermore, to explore how MTE has influenced individual-oriented CPD opportunities in the wake of the TES, and the following years.

### *3.6.7 Successful CPD: a pathway*

Before concluding this Chapter, it is crucial to consider that the success of teacher development options is by no means guaranteed since there is no single CPD recipe that can be transplanted to various settings and be successful in improving teaching. However, some research has looked at the basics of teacher CPD that may indicate whether the structure, the content, the length, and other factors can set apart best teacher development opportunities.

CPD has not always been a successful method for improvement potentially because of *who* decides *what* teachers must learn or develop and *why* those and not others (Timperley, 2011). As Johnston (2015) states: 'it would appear that teachers are considered to be a homogenous group of people

rather than a set of individuals with diverse learning needs and knowledge bases' (p.311). Also, centrally managed CPD makes of it a sort of "Argos catalogue" (Mitchell, 2013, p. 395) for the teachers to choose among the options; therefore, the risk of disconnection with the everyday teachers' work is plausible. For instance, current trends in the curriculum embrace the students' socio-emotional wellbeing, which is barely included as a development option (Bubb & Earley, 2008). It may be equally detrimental when those in power utilise CPD to trickle down a policy reform which is mainly concerned with controlling the teaching workforce (Bubb & Earley, 2008; Sørensen, 2017).

Similarly, Timperley (2011) documents that 'much professional development has little meaning for teachers' (p.2), and Guskey (2013, 2016) proposes that the problem is that CPD options often lack monitoring and evaluation. Therefore, he posits the following five levels of data to assess the impact of teacher professional development:

- Level 1: Participants' reactions
- Level 2: Participants' learning
- Level 3: Organisation support and change
- Level 4: Participants' use of new knowledge and skills
- Level 5: Student learning outcomes

He proposes to plan teacher training programmes in a backwards fashion, placing the kind of student outcomes expected as a result of teacher development. He believes that current assessments stop at the first levels of his proposed path, which does not help develop an effective policy on this matter (*ibid*). Drawing on Guskey's pathway, Harris et al., (2006, p. 7) study in the UK concluded that 'the vast majority of evaluation practice remains at the level of participant reaction and learning. The impact on student learning is rarely evaluated and if done so, is rarely executed very effectively or well'. Similarly, the Mexican experience with teacher CPD reveals that

monitoring and evaluation has lacked for the most part (Cordero et al., 2013; Tejedor, 2012) and that when existent, it refers to data on teachers' satisfaction or factual learning, not so on the use of new knowledge or evidence of impact on the students' outcomes.

Still, Guskey's evaluation model is debatable. Firstly, planning teacher learning opportunities aimed at gathering "evidence" of impact may distort the goal of teacher professional development, which is, in the first place, to enhance the teachers' knowledge, skills and dispositions (The Department of Education & Training, 2005; Timperley et al., 2007; Villegas-Reimers, 2003). Moreover, it will prove highly difficult for evaluators to isolate the students' learning happening because of the given teacher training. Likewise, artificially constraining student outcomes for the sake of evaluating teacher development options may incite teachers to *fabricate* evidence of impact (Ball, 2003; Webb, 2006).

Although it is commendable to expect that CPD is carefully planned by placing students' outcomes at the centre of implementation, in practical terms, the immediate and subsequent impact on the students' learning is therefore highly challenging to determine. Still, research supports the premise that more teacher professional development and better student academic outcomes are associated (Darling-Hammond & Wei, 2009; Fullan, 1998; Villegas-Reimers, 2003; Yoon et al., 2007). Therefore, how to enact and disseminate cost-effective further development for teachers is vital at this time. It is undoubtedly essential in the context of MTE as it is deemed a means to inform teachers what areas need improvement and what further development options suit them best. Again, in this research, the teachers' perspectives on how MTE contributes to a successful pathway to professional enhancement via training is paramount.

### 3.6.8 Concluding statements on teacher Continuing Professional Development

This review of teacher CPD presented essential conceptual and political approaches to improve teaching and learning practices, as a key lever to improve educational quality (Darling-Hammond & Wei, 2009; Day & Sachs, 2004; DFAT, 2015; Fullan, 1998; Ingvarson et al., 2005; The Department of Education & Training, 2005; Timperley et al., 2007; Villegas-Reimers, 2003; Yoon et al., 2007). Furthermore, theoretical approaches to teacher learning were reviewed to orientate research concerned with the motivations, rationales, and decisions teachers make when presented with further professional development opportunities. Demarcating these aspects is essential to understand better how CPD operates in Mexico pre and post-reform, and whether such training options have an impact on the teachers' practices. The literature regarding *formal* and *informal* ways of professional enhancement was demarcated, and two approaches to CPD, i.e. *collective* and *individual-oriented* teacher development were also analysed and critiqued. CP and PLC as collective teacher development spaces were analysed and will be reflected on in the light of the findings of this study with regards to teacher study groups and school staff CPD meetings.

The pathway theorised by Guskey (2013, 2016) illustrated some areas where centrally-managed CPD can be improved. For instance, in the case of Mexico, CPD provided by the state seems limited in addressing teacher development impact beyond quotes of satisfaction and basic accounts of factual knowledge acquired via training. CPD provision is amidst debates between those who question the instrumentation of teacher CPD as it can be detrimental to creativity and freedom (Johnston, 2015), and other narratives claiming that 'teacher professional learning [is] the multimillion-dollar solution' (Timperley, 2011, p. 1). Equally, the debate lies among traditional practices where one-off CPD is usual, as with most past provision in Mexico, and those who maintain that 'to be successful, professional development must be seen as a process, not an event' (Guskey, 2002, p. 388). Standardisation versus contextually-situated teacher CPD is also part of the

conflicting views on teacher development (Harris et al., 2006). Thus, this research considers the teachers' perspectives on how MTE has influenced CPD opportunities and its potential in the improvement of quality education.

### 3.7 Summary of the Chapter and Research Questions (RQs)

In a sort of Russian Matryoshka doll, this literature review presented the interrelated issues concerning approaches to quality education and teacher quality, teacher standards and frameworks, TES, and teacher CPD for enhanced teaching and better student outcomes. The review allowed mapping the dual purpose of economic and the whole child development via convergent approaches to quality education, i.e., the human capital and the human rights frameworks. It was argued that education policy operates according to the way education quality is framed concerning the student or other outcomes, processes, context and inputs (see UNESCO, 2004, Schereens et al., 2003). For instance, by targeting improvement strategies or areas where students' outputs, such as their academic results, can be enhanced. Teachers matter, and hence, standardisation of good teaching via standards and frameworks for teaching was reflected on and critiqued. Teacher performance appraisal is deemed one lever for quality improvement; therefore, TES are formally enforced in some country contexts. An ample debate located in the literature has to do with the stakes of teacher evaluations, as they can adopt punishing or developmental consequences, but unintended consequences also ensue. The issues about CPD, school improvement approaches and TES as methods for improving the quality of education were also discussed. Nevertheless, some academics argue that most of the past waves of the TES policy have failed to provide meaningful feedback for the teachers to make decisions on this matter (Callahan & Sadeghi, 2015; Donaldson & Papay, 2014; Hattie & Timperley, 2007).

Attempts to standardise CPD that is effective under different situations is the holy grail which researchers and policymakers aim at uncovering. In that sense, meta-reviews of the literature on the topic strive to provide standard features of CPD that have positively impacted on teachers and students (Jensen, Sonnemann, Roberts-Hull, & Hunter, 2016; Stoll et al., 2006; Walter & Briggs, 2012). For instance, it is known that classroom-based teacher learning is essential to develop relevant skills, as well as fostering collaboration with peers. Complementary external expertise, including mentoring and coaching, and CPD that is followed-up, are found necessary for enhancement. The role of the school leader and consideration of the teachers' self-perceived needs are also paramount. Nevertheless, although the components of a successful CPD formula might be outlined, what remains unknown is the proportion, the quality, and the contextual circumstances that foster teacher quality. In practice, the CPD required to improve Mexico's education quality may include some of the components enlisted in meta-reviews, tackle different ones, or emphasise some of them more than the others. These ideas resonate with those of Guskey (2013, p. 11) who posited:

Even if we agree on the student learning outcomes that we want to achieve, what works best in one context with a particular community of educators and a particular group of students might not work as well in another context with different educators and different students.

Teacher CPD that works is convoluted not only in terms of design and delivery but in terms of the expectations it advances. Nowadays, CPD which is worth the investment is one that improves teaching and student outcomes, as well as enhancing the school and the communities while also providing data for further training (Guskey, 2016; Timperley, 2011). Nevertheless, despite it being argued that all actors should take responsibility for education quality (Timperley, 2011), 'the key players and instigators are rarely there at the end to critically evaluate or respond to research data

from the reform' (Johnston, 2015, p. 311). Similarly, because political agendas are typically put first and educational processes afterwards, 'part of the problem is that the actual results of education reforms are rarely analysed simply because the most important outcomes are only visible in the longer-term, later than most administrators or politicians can wait' (Sahlberg, 2006, p. 283).

In the context of MTE, the lack of teacher consultation regarding TES and subsequent CPD resembles in many respects the circumstances in other latitudes, including Portugal, Flanders (Belgium), and potentially many others (Flores, 2011; Ramírez & Torres, 2016; Tornero & Taut, 2010; Tuytens & Devos, 2009). Therefore, broader participation and an account of the perspectives of those for whom the policy is devised, which inherently includes teachers, students and carers (Ko, Sammons, & Bakkum, 2014) is essential to design avenues for quality improvement. This research proposes the following three research questions to address such theoretical, methodological and empirical knowledge gaps:

RQ1: What were the opportunities (formal and informal) for CPD that teachers had before 2015-MTE?

RQ1a: What do teachers say about the impact of CPD before 2015-MTE on their practice, its pertinence and quality?

RQ1b: Did the extent of participation and perceptions of how CPD impacts on their practice vary according to teachers' experience?

RQ2: What are the strengths, weaknesses, and unintended consequences of 2015 & 2016 MTE in informing further CPD decisions and improving teacher performance?

RQ3: What CPD options did MTE participants need and take after the evaluation, particularly in 2016-2017?

RQ3a: Did perceptions of CPD needs after MTE vary according to teaching experience?

RQ3b: How does CPD in 2016-2017 compare to CPD before 2015-MTE regarding impact, pertinence, and quality?



## 4 Methodology

Education is a thoroughly human practice in which questions about “how” are inseparable from questions about “why” and “what for”

(Biesta & Burbules, 2003, p. 22)

### 4.1 Introduction

As presented in the introductory Chapters, this research explores the teachers’, headteachers’, and policymakers’ perspectives regarding MTE and CPD for the improvement of teaching and quality education. A snapshot of the research context and a review of the literature suggests that approaching educators and policymakers to explore the ongoing mandate is necessary to uncover its strengths, weaknesses and unintended consequences. This Chapter presents the philosophical framework used for the research. The sequential mixed methods research (MMR) design and two data collection methods: a large-scale teacher survey and semi-structured interviews with teachers and other stakeholders, will be reviewed in detail. An evaluation of the quality of data integrated into this PhD research, a review of the ethical considerations and methodological limitations of this investigation conclude the Chapter.

### 4.2 Philosophical framework

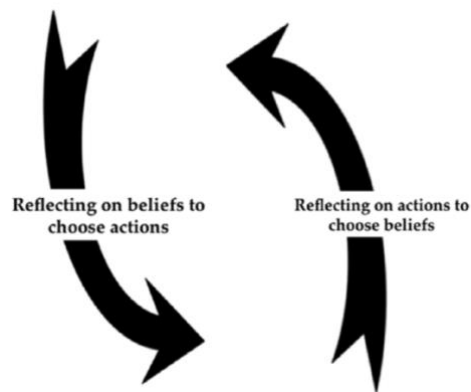
In order to address the research aim and questions, the philosophical approach considered most appropriate to underpin this PhD research was pragmatism. This stance is mainly inspired by the American school of thought of John Dewey and other commentators of recent times. Also, on the seminal postulates of Charles Sanders Peirce who posited:

There are Real things, whose characters are entirely independent of our opinions about them; those Reals affect our senses according to regular laws, and, though our sensations are as different as are our relations to the objects, yet, by taking advantage of the laws of perception, we can ascertain by reasoning how things really and truly are; and any man, if he have sufficient experience and he reason enough about it, will be led to the one True conclusion (Peirce, 1878, p. 19).

That is, pragmatists acknowledge the existence of reality regardless of the approval of its existence, while the reality appears as different as human experience allows it (Goldkuhl, 2012). This philosophy posits that people can devise how things are through reasoning. In that sense, teachers' perspectives about MTE were essential to this research; nevertheless, the focus was not on the plain elucidation of their views for the sake of understanding. Pragmatism aspires to find practical ways of change and improvement (*ibid*). This philosophy grounds its warrants in the (inter)actions between individuals and the broader environment (Biesta, 2010a; Biesta & Burbules, 2003; Boyles, 2006), thereby the relevance of participants' *experience* in this research.

For example, drawing upon Morgan's schema of Dewey's model of experience (**Figure 4.1**), it is argued that people act in their everyday lives according to their beliefs, and the consequences of those actions endlessly inform further their beliefs. This cyclical process was termed by Dewey *inquiry* (Biesta, 2010a; Dewey, 1908; Morgan, 2014). Goldkuhl (2012, p. 139) put it this way, 'an inquiry is an investigation into some part of reality with the purpose of creating knowledge for a controlled change of this part of the reality'. According to this philosophy, inquiry occurs in everyday life through experience, as well as via systematic research, or as Morgan phrased it, 'overall, however, inquiry is just one form of experience, and research is just one form of inquiry' (2014, p. 1047).

Figure 4.1. Dewey's model of experience.



Source: (Morgan, 2014, p. 1047).

Some academics describe pragmatism as a point in the middle between positivism and interpretivism (Heyvaert, Hannes, Maes, & Onghena, 2013). As a pluralistic worldview, as some have chosen to depict it (Creswell, 2014; Johnson & Onwuegbuzie, 2004), pragmatism facilitates inquiry via various means, including both qualitative and quantitative approaches (see section 4.3). It also facilitates the research enterprise without getting stuck in the incommensurability of research methods (Mertens, 2016). Such flexibility is vital for investigating complex research problems (Biesta, 2010b).

Pragmatism is also referred to as a 'problem-solving' stance; however, the philosophical framework goes beyond this (Feilzer, 2009; Morgan, 2014). Inquiring about the world through such a lens allows researchers to formulate practical knowledge about the consequences (Biesta, 2010a; Dewey, 1908; Morgan, 2014) and the meaning (Denzin, 1992) of peoples' everyday actions. There is no pure pragmatism as the literature records (Biesta & Burbules, 2003) and no attempt to claim purism is made here. This research sought to answer timely research questions among those who have been in touch with the research problem and have, consequently, undergone processes of inquiry themselves about policy and practice in education.

Arguably, pragmatism could be portrayed as a philosophy of the individual since knowledge is constructed by persons based on their interactions in everyday settings. However, this is where Dewey's view of pragmatism sheds light on the existence of other forms of interactions that supersede the individual organism, something named *communication*. According to Biesta (1994, cited in Biesta & Burbules, 2003, p. 12)

Communication is not the simple transfer of information from one mind to another, but the practical coordination and reconstruction of individual patterns of action, which results in the creation of a shared, intersubjective world. Since this intersubjective world is created through action -and not through the transfer of information from one mind to another- we suggest calling this dimension of Dewey's work "practical intersubjectivity".

#### 4.2.1 *Pragmatism in this PhD research*

In the context of this PhD research, the researcher became conscious of his involvement in a world which is "shared" with participants of the research; at the same time, mindful of existing "intersubjectivity" in the field (Morgan, 2007, 2014). In other words, among teachers, there is, to some extent, a common understanding and way of acting upon the world, particularly concerning MTE. Yet, such views may vary, depending on the practical implications so far experienced by those individuals. Such perspectives are, therefore, essential to understanding what of the TES is commendable and what might require change.

Furthermore, this philosophy is coherent with the practical outcome-oriented nature of the conceptual frameworks described in the literature review. For example, relating to Goe's (2007) approach to teacher quality, this research addresses the possibilities of MTE as an evaluation of teachers' inputs and processes (indirectly), to reflect on how these components might have an impact on education and teacher quality improvement. Regarding Timperley's (2007) model of

teacher and student learning, pragmatism was appropriate to gain knowledge about the teachers' rationales for change, as well as the practical consequences of those changes in, for example, teachers' practices or attitudes.

TES and the related issue of CPD for teaching improvement are not exclusive to Mexico, but a common trend in many countries (Isoré, 2009; Santiago, McGregor, et al., 2012; Villegas-Reimers, 2003). Therefore, formulating knowledge from a pragmatic stance provides useful insights for those facing similar challenges in other parts of the world. This potential transferability and the use of others' experiences beyond the context where research takes place is another essential trait of pragmatism (Goldkuhl, 2012). That is not to say that knowledge arising from pragmatist work should be equated to canned thinking suitable to apply in all places, times, and under all circumstances. On the contrary, going back to Dewey's model of experience (Biesta & Burbules, 2003; Morgan, 2007) about the need of a somewhat perpetual cycle of inquiry and action, it is sensible to say that, as members of a continuously changing world, this research contributed to uncovering current aspects of a policy that might be unexpected and others that could be improved. This last idea bridges with Peirce's (1878) revealing statement about the long-term nature that research entails. Hence, being fair to current experience, developments and possibilities at hand, this research strives to contribute, together with others' endeavours to the ongoing investigation of the research problem.

In summary, pragmatism aligns with the decision to use MMR to address the aim and research questions adequately. Furthermore, using this philosophical framework is to affirm a commitment to gaining practical knowledge about current policy developments that might require adjustment in a context where teacher evaluation with consequences for the job is a new phenomenon.

### 4.3 Research design

This research followed a mixed-methods approach which is coherent with the philosophy framing this inquiry. Likewise, Morgan (2014, p. 1045) contends that ‘there is no deterministic link that forces the use of a particular paradigm with a particular set of methods’. This is so because ‘there is a tendency among some researchers to treat epistemology and method as being synonymous’ (Johnson & Onwuegbuzie, 2004, p. 15). Previous research has cautioned about the limitations of mono-method approaches to investigate the introduction of TES and related CPD given the complex nature of the topic (Taut et al., 2011; Tuytens & Devos, 2009). Thus, recent studies have employed mixed-methods approaches to obtain more extensive evidence across a district or a country, e.g. via survey research, as well as rich, in-depth data from observational, and other qualitative data (Jiang et al., 2015; Vaillant & Gonzalez-Vaillant, 2017).

According to Johnson and Onwuegbuzie:

[MMR] offers an immediate and useful middle position philosophically and methodologically; it offers a practical and outcome-oriented method of inquiry that is based on action and leads, iteratively, to further action and the elimination of doubt; and it offers a method for selecting methodological mixes that can help researchers better answer many of their research questions (2004, p. 17).

MMR implies ‘the inclusion of a quantitative phase and a qualitative phase in an overall research study’ (*ibid*, p.20); furthermore, decisions on the prevalence of one of the strands over the other and whether the research methods will be implemented concurrently or sequentially are crucial to this methodology. Given the nationwide scope of MTE, to collect data in large numbers first, and then select some participants to get closer to their perspectives on the research matter, the inquiry followed a sequential style (Creswell, 2014; Johnson & Onwuegbuzie, 2004). That is, data collection methods were chronologically implemented, as shown in **Figure 4.2**. Based on the sample sizes in

each strand of the research, this methodology gave higher regard to the quantitative method, denoted as *QUAN*, and a supporting connotation to the qualitative components, *qual* (see **Figure 4.3**)

Figure 4.2. The methodology and methods of this study.

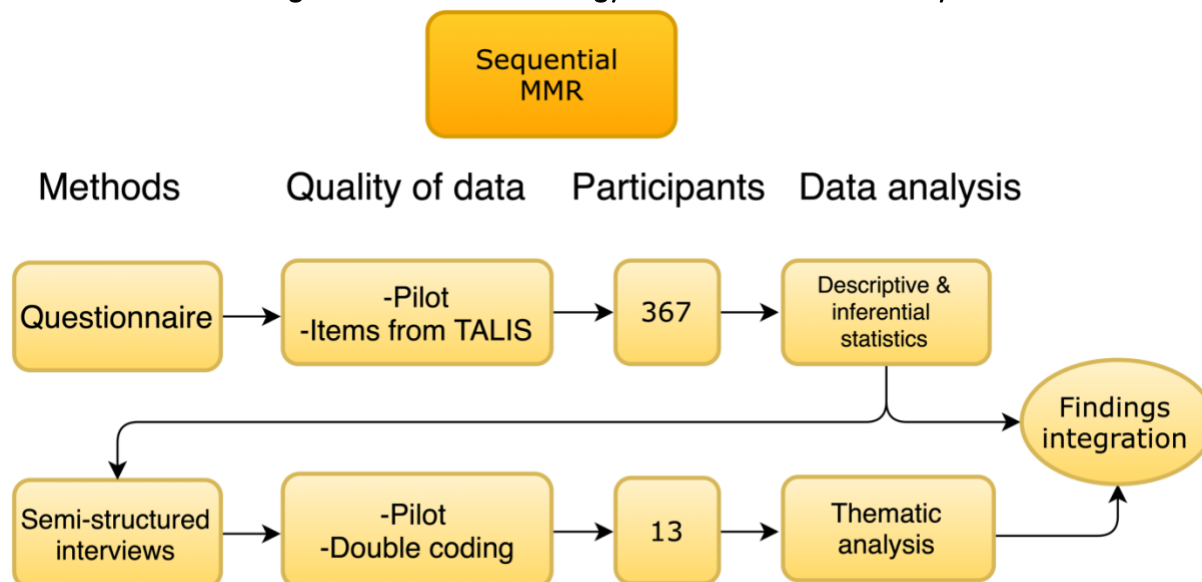
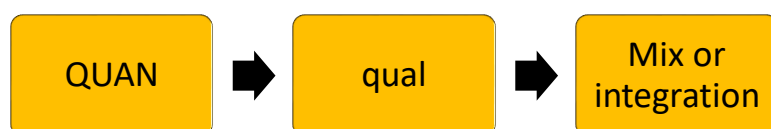


Figure 4.3. Research design: sequential Mixed-Methods Research.



Source: adapted from (Johnson & Onwuegbuzie, 2004, p. 22).

Previous similar research on national or state-wide TES and CPD programmes used survey research and questionnaires as research instruments because this allows participants to be reached in large numbers (Akiba & Liang, 2016; Callahan & Sadeghi, 2015; Delvaux et al., 2013; OECD, 2014; Tornero & Taut, 2010; Tuytens & Devos, 2009). Teacher interviews have also been used when looking at teachers' perspectives on similar matters, mainly when a deeper understanding of the motives and rationales underpinning the participants' viewpoints are needed (Cuevas, 2018; INEE,

2016c). Thus, in MMR, the downsides of one research method are compensated by the strengths of the other method (Heyvaert et al., 2013). In sum, the approach can be helpful in the construction of well-rounded conclusions, for spotting discrepancies in the data, and for finding answers to the research questions in ways that single-method research would be unable to achieve (*ibid*).

#### 4.3.1 Data collection methods: an overview

The TALIS teacher-questionnaire (OECD, 2014) was used as a reference for the initial outlines of a teacher survey; subsequently, the instrument was piloted with primary teachers in Mexico (see Appendix 8). Semi-structured interview protocols were designed drawing on previous relevant research (Harris et al., 2006; INEE, 2016c), and refined through piloting (see Appendix 9). The empirical quantitative data of this research was gathered via convenience sampling (de Vaus, 2002; Etikan, 2016) from primary teachers and headteachers with four years of experience or more at the time of data collection (total sample  $n=367$ ). A third of them were evaluated in MTE-2015 or MTE-2016 ( $n=131$ ). Also, eight teachers, two headteachers, and three policymakers were invited for interview using purposive sampling (*ibid*). **Table 4.1** is a detailed summary of the data collection instruments utilised in this research. Each of them will be subsequently explained and further justified in relation to the RQs that each addressed.

**Table 4.1. Data collection instruments and sample: a summary.**

| Research phase      | Method of data collection                 | Purpose   | Sampling method                       | Number of participants                          |
|---------------------|---|---|---------------------------------------|---|
| <b>Quantitative</b> | Online self-administered questionnaire    | To collect extensive data regarding teacher participation in CPD before and after MTE; teachers' perspectives on MTE and feedback report. | A convenience, non-probability sample | $n=367$ of which $n=131$ participated in MTE    |
| <b>Qualitative</b>  | Semi-structured interviews with teachers, | To collect in-depth data about the aspects covered in   | Stratified-purposive                  | $n=8$ teachers (2 insufficient; 2 sufficient; 2 |



|  |                                 |  |  |  |
|--|---------------------------------|--|--|--|
|  | headteachers, and policymakers. | the online survey, but mainly, on matters concerning MTE, the feedback report and CPD after MTE. |  | good; and 2 outstanding in MTE)<br><br><i>n</i> =2 headteachers (1 proficient; 1 non-proficient)<br><br><i>n</i> =3 policymakers (1 from SEP; 1 from INEE; 1 from SNTE)* |
|--|---------------------------------|--|--|--|

\* Policymakers worked at any of the following. The Secretariat of Public Education (SEP); the National Institute of Educational Evaluation (INEE); and the main teachers' union (SNTE).

## 4.4 Online questionnaire: instrument rationale, and development

### 4.4.1 Instrument rationale

The online questionnaire was designed to address mainly RQ1, RQ3 and sub-questions, on CPD before and after MTE. The second research question on the strengths, weaknesses and unintended consequences of MTE was briefly tackled through this method. TALIS was used as an instrument development model because the international survey is a well-established and robust data collection method regarding the teachers' working conditions from an increasing number of countries (OECD, 2014). Given its relevance to the aim of this research, the items utilised in this investigation's questionnaire are adaptations of those contained in two sections of the original TALIS: *teacher training and professional development*, and *appraisal and feedback* (*ibid*, p. 28). TALIS also includes sections on school leadership, teachers' beliefs, and teacher self-efficacy but these items were not used as not directly related to this research.

Unlike previous research using teacher surveys (Elizondo & Gallardo, 2017; INEE, 2016b; OECD, 2014), this research's questionnaire approached knowledge concerning participation and perceptions of the impact of state-provided CPD and other informal means for teacher

development to compare two essential points in time, i.e. the academic years 2014-2015 and 2016-2017. That is, during the year before the first main implementation of MTE in 2015 (see Appendix 4), and the year following two rounds of assessments (2015 & 2016), before further changes to the evaluation procedures took place, as seen in section 2.7.2. Such knowledge is necessary to understand how MTE tackles issues regarding teacher CPD that may be affecting the quality of education.

Furthermore, within the scope and possibilities of PhD research, the dissemination of online teacher survey using online social networks was an appropriate method to reach participants in relatively large numbers that would be difficult to approach in their localities across Mexico. This was mainly due to two reasons; (i) the teachers' contact details, particularly of those who participated in MTE, were not publicly available; (ii) given a climate of uncertainty about the consequences for the job arising from MTE, some participants seemed reluctant to share their viewpoint should their names be disclosed (see the ethical considerations 4.12).

The online teacher survey targeted participants with four years of professional experience or more at the time of data collection (i.e. late 2017) because the purpose was to aggregate answers from participants who were already in-service during the academic year 2014-2015, and hence, were able to give insight into matters regarding CPD before 2015-MTE<sup>18</sup>. Moreover, as mentioned in section 2.7.2, conducting the online survey in 2017 was appropriate to avoid mixing teachers assessed under different circumstances. The online questionnaire was equipped with several debarring items to guide teachers through the relevant pathway depending on their

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<sup>18</sup> The online survey was disseminated in the Autumn of 2017, thus, four-years' experience teachers in this research were NQT in their first year of experience in the education system during the academic year 2014-2015.

circumstances, for instance, there were routes for teachers who participated in MTE, and for those who had not attended at the time of data collection. The questionnaire was piloted (see Appendix 7) and final version outlined below. See Appendix 9 for the complete questionnaire schedule.

#### 4.4.2 *Instrument development (online questionnaire)*

The questionnaire contained the following: (i) a presentation and consent form requesting the participant to agree to the terms and conditions, including the screening criteria as explained in a previous section; (ii) 37 questions distributed into four parts. All participants ( $n=367$ ) responded to the two beginning parts of the questionnaire; MTE participants additionally answered two more parts as follows.

**Part 1 - Demographic data** – all participants responded ( $n=367$ ).

This part of the survey collected participants' characteristics to compare with existing statistics of teachers in Mexico, as well as to contrast different groups in the sample (Sue & Ritter, 2007). The teachers' gender, age, academic degree, teaching experience, initial teacher education, contractual status, state of residence, the type of school where the participant works, the school grades they teach, and whether indigenous students receive education at their workplace were collected. The method of access to the survey, e.g. Twitter, Facebook, was also collected.

**Part 2 - CPD before 2015-MTE** – all participants responded ( $n=367$ ).

In this part, information about teacher participation in *formal* and *informal* CPD during the academic year 2014-2015 was collected to tackle RQ1. Some item-response examples will be presented here for brevity, but all the options given in each of the items can be consulted in Appendix 9. Changes to original TALIS items arising from pilot studies are indicated in footnotes. The items in this part of the questionnaire addressed the following:

| Item  | Examples of responses   | Item response options   | Use given to data  |
|---|---|---|--|
| <b>Formal CPD-subjects</b>                                  | characteristics of the most recent curriculum; academic content knowledge of my school grade; ICT for teaching and learning <sup>19</sup> . | Likert-type scale (not-applicable; no impact; little; moderate; large).   | The item serves to benchmark with existing records and compare with options taken after MTE.   |
| <b>Formal CPD-formats</b>                                   | workshop, diploma, conference or seminar etc. <sup>20</sup>   | Participated/no participated. Multiple choice item.                       | Helps to compare with the literature on CPD formats more effective for teacher development. Comparative data with formats after MTE. |
| <b>Formal CPD providers</b>                                 | teacher centre; higher education private institution; teacher college.  | Participated/no participated. Multiple choice item.                       | Explores whether formal CPD providers remained or change throughout the period of study.   |
| <b>Pertinence of formal CPD delivery modes<sup>21</sup></b> | online, in-person, blended learning.  | Likert-type scale (not applicable; not pertinent; little; moderate; much) | Locates the extent of participation in each delivery mode, and the adequacy of each option to compare with 2016-2017.                |
| <b>Evaluation of formal CPD</b>                             | completing the hours required or presenting a written or oral examination.  | Multiple choice item.   | Informs on the existing procedures to assess CPD completion to examine the quality of training before and after MTE.                 |

<sup>19</sup> Four options in the original questionnaire were not included in this study, these are: approaches to individualised learning; teaching cross-curricular skills; approaches to developing cross-occupational competencies for future work or future studies; and new technologies in the workplace. It was considered that there was some overlap with the other options. The option *psychological development of students* was included.

<sup>20</sup> The original TALIS items: individual or collaborative research was merged with networks of teachers into the individual or group education research option in this study's questionnaire. The original TALIS item: observation visits to business premises, public organisations, non-governmental organisations did not make sense to the participants during a pilot study, therefore, it was not included. Finally, the option Master-PhD added.

<sup>21</sup> According to the Royal Spanish Academy, 'pertinencia' means that something comes or is done on purpose. A synonym to the word is 'adecuado' or 'adequate' in English. In this item of the questionnaire the aim was to know whether the CPD delivery mode was appropriate for the teachers' development.

|   |  |   |   |
|---|--|---|---|
| <b>Formal workplace CPD</b>                                 | school staff CPD meetings, classroom observations  | Likert-type scale (not-applicable; nothing; little; moderate; much) | Investigates availability and perceived contributions to the practice.                                    |
| <b>Characteristics of good and lower quality formal CPD</b> |  | <i>Free-text boxes</i>  | Helps to understand the teachers' views on quality CPD and serves to compare with CPD on offer after MTE. |
| <b>Informal CPD</b>   | teacher study groups <sup>22</sup> , self-learning such as e-learning, consulting academic research. | Likert-type scale (not-applicable; nothing; little; moderate; much) | Explores the under-researched area of CPD self-provision, amidst high-stakes consequences TES.            |

### Part 3 - MTE and the feedback report – only 2015-MTE-and 2016-MTE responded ( $n=131$ ).

This part included items related to participation in MTE with an emphasis on the perspectives about informativeness of the feedback report concerning CPD to address RQ2. The following items integrate this part of the questionnaire:

| Item  | Examples of responses         | Item response options | Use given to data   |
|---|-------------------------------|-----------------------|---|
| <b>Participation in a teacher study group</b> |                               | Yes/no                | The item gathered data on the extent of participation in these preparatory groups for MTE. Also, the continuation or not in the groups was asked. |
| <b>Teachers' results in MTE</b>               | Insufficient, good, and so on | Single response item  | Provides summary data on the MTE participants' results. Also, served to contrast groups and locate potential volunteers for interview.            |
| <b>Type of participation in MTE</b>           | Voluntary or draw             | Single response item  | Provides summary data on the proportions of   |

<sup>22</sup> It was decided to include teacher study groups among *informal CPD* options given the uncommon use of these formats as a state-provided mode for teacher development. Nevertheless, the literature identifies the use of study groups as state-led CPD sparingly across Mexico in the wake of MTE (Cordero et al., 2017).

|   |   |   |  |
|---|---|---|--|
|   |   |   | teachers who volunteered or were selected to sit MTE. Was used to compare groups and potential biases in results according to these characteristics. |
| <b>Informativeness of three MTE phases</b>        | Student portfolio, exam, and lesson plan.                                   | Likert-type scale (nothing; little; moderate; much).  | Investigates the instrumental value of the feedback report.  |
| <b>Further information on the feedback report</b> | My feedback provides detailed information concerning my teaching strengths. | Likert-type scale (totally disagree, disagree, neither agree nor disagree, agree, totally agree). | These five sentences aimed to gain knowledge on the informativeness of the report to the teachers for CPD decisions after MTE.                       |

#### Part 4 - CPD after MTE – only 2015-MTE and 2016-MTE responded ( $n=131$ ).

The concluding part of the online survey collected data about participation in CPD after MTE to tackle RQ3 through the following items:

| Item                                      | Examples of responses   | Item response options | Use given to data   |
|---|---|-----------------------|---|
| <b>CPD needs after MTE</b>                | Same as CPD-subjects in part 2 of the questionnaire <sup>23</sup> .             | Multiple choice item. | Provided data to compare perceived CPD needs with CPD-subjects taken in 2014-2015.  |
| <b>Formal CPD in 2016-2017</b>            |   | Yes/no                | Summary data on CPD taken by MTE participants. Potential associations between 2014-2015, 2016-2017 and in study groups were explored. |
| <b>Deterrents to participating in CPD</b> | My work schedule clashes with CPD timetables; duties at home make it difficult. | Single response item  | Provides instrumental summary data to compare with existing records, and discuss downsides of current                                 |

<sup>23</sup> The option Characteristics of the previous curriculum presented in Part 2 of the questionnaire was changed to Characteristics of the most recent curriculum in Part 3 for coherence.

education reform and  
how to facilitate  
access to CPD.

## 4.5 Interviews: instrument rationale, and development

### 4.5.1 *Instrument rationale*

The semi-structured interviews were designed to extend the survey findings by providing richer in-depth evidence from teachers and other stakeholders to the three research questions; however, qualitative findings substantially informed RQ2. Coherently with the aim of this research, the use of semi-structured interviews had a pragmatic purpose because teachers and educational leaders possess unparalleled knowledge of the implications of policy in practice. This method appeals to the people's awareness of the phenomenon; in this respect, Seidman (2006, p. 7) posits that 'individuals' consciousness gives access to the most complicated social and educational issues, because social and educational issues are abstractions based on the concrete experience of people'.

Therefore, research looking at teachers' perspectives has traditionally used semi-structured interviews as a method of data collection (Bolam et al., 2005; Goodall et al., 2007). In the Mexican context, this has not been an exception (Cuevas, 2018; INEE, 2016c). Still, the use of collective interviews, such as focus groups, were not considered sensible on this topic because this technique lacks control of confidentiality beyond the possibilities of the researcher (Barbour & Schostak, 2011). Also, because when the data were collected, some teachers seemed hesitant to openly phrase what they thought of the policy amidst contradictory discourses coming from the authority and the teachers' union on this matter. Therefore, to respect the anonymity and confidentiality of the participants, individual semi-structured interviews was a preferred method (see ethics in

section 4.12). Interview schedules were piloted (see Appendix 8) and final versions outlined below. Complete interview schedules can be consulted in Appendix 10.

#### *4.5.2 Instrument development (semi-structured interviews)*

Two protocols, one for classroom teachers, and one for headteachers and policymakers were designed because it was considered that the views of those in leadership positions might provide contrasting impressions of the TES as compared with classroom teachers. Although this does not necessarily imply that their perspectives cannot coincide. The interviews were planned to take 40 minutes on average to complete. In general, these outlines were flexible enough to facilitate unexpected lines of conversation with the participants but, at the same time, sufficiently standardised as to maintain a degree of consistency for quality comparisons and analyses (Flick, 2007). Regarding the teacher interview schedule, current research on teacher CPD (Harris et al., 2006), and the local experience with MTE (INEE, 2016c) were reviewed and considered for the first outlines. Preliminary results from the online survey also informed the design of the interview schedules, as described below.

##### **4.5.2.1 Teacher interviews**

A brief descriptive exploration of the survey findings helped to tailor the outline of the teacher interview protocol. For instance, in the online survey teachers rated the feedback report as both informative and non-informative almost in a 50/50 proportion; therefore, it was essential to know what makes teachers perceive it one way or another. Similarly, 50% of the teachers who participated in MTE took CPD afterwards, so it was important to know what motivates both groups of teachers to undertake or not CPD. Thus, in line with RQ2 and RQ3, the core of the teacher interview protocols revolved around the participants' experience with MTE, including the feedback



report, and teacher CPD after the evaluation. The three overarching topics addressed through this method were as follows:

**Feedback report:** this section addressed topics such as the perceived purpose, usefulness, strengths and weaknesses of the report, and the relationship of this with further CPD. Sample question:

- How was the relationship between your feedback report and the CPD option that you undertook?

**CPD after MTE:** in-depth data about the CPD options teachers undertook following the evaluation were collected to understand the differences between this offer in 2014-2015 and the CPD available in 2016-2017. In that sense, the providers, delivery-modes, length, barriers for participation, the perceived impact of CPD on practice, and the fit for teaching improvement needs were asked. Sample question:

- In what way was this course the right one for you? Why? Can you give an example?

**MTE in general:** this overarching topic addressed the teachers' views about the strengths and weaknesses of MTE as a policy for quality education improvement.

- What do you think about MTE as a means for quality education improvement? Can you elaborate more about this?

#### **4.5.2.2 *Headteacher and policymaker interviews***

A core interview protocol was drafted for headteachers and policymakers. Nevertheless, policymakers were addressed via tailored versions of the protocol because they worked at different institutions and their relationship with MTE also varied. For example, affiliates of the Secretariat of Public Education (SEP) administer the TES; personnel from the National Institute for Educational Evaluation (INEE) were in charge of validating processes and the TES instruments. Members of the

National Union of Education Workers in Mexico (SNTE) represented the teachers and acted as training providers. No previous local research has approached high-ranking policymakers to gather their perspectives on the recently introduced MTE. Therefore, the researcher employed research questions two and three as a roadmap to draft the initial procedures. Interviewing these individuals was vital to understand MTE from various angles and to contrast their views and those of teachers. In line with the teachers' interviews, the following three general topics were discussed with these participants:

**MTE in general:** this topic addressed the institutional perspective on MTE as a policy intended to contribute to better teaching practice and the improvement of quality education. Moreover, the participants were asked about MTE's suitability for the detection of teachers' strengths and weaknesses. Sample question:

- From an institutional viewpoint, how is the new policy on teacher evaluation helping teachers to improve their practice in their schools?

**Feedback report:** this section covered issues like those raised with teachers, for instance, the informativeness of the report to the participants of MTE and, the extent of personalisation possible concerning feedback to the teachers. This component of the TES was important to investigate among these participants because they oversaw its design, implementation, and utilisation for further teacher CPD to a different extent. Sample question:

- What is the institutional point of view with regards to the feedback report to inform teachers' decisions about CPD?

**CPD after MTE:** since the secretariat of education stated that CPD after MTE would be made-to-measure since 2016 (see section 2.8.2), the participants were asked how this promise operated on the ground. The purpose was to know the feasibility of this pledge and if so, the extent of actual implementation known. Sample question:

- In 2016, a tailored to fit CPD policy was announced. Are the CPD options currently available tailored fit to the teachers' needs? What role does the feedback report play in this regard?

## 4.6 Online questionnaire sampling, data collection, and participants' demographics

### 4.6.1 *Sampling strategy: online questionnaire*

The approach employed in this part of the research was convenience sampling (de Vaus, 2002; Etikan, 2016), 'this is a type of nonprobability or nonrandom sampling where members of the target population that meet certain practical criteria, such as easy accessibility, geographical proximity, availability at a given time, or the willingness to participate are included for the purpose of the study' (Etikan, 2016, p. 2). Appendix 11 summarises the decisions made regarding the distribution of the online questionnaire. The online survey targeted primary school teachers and headteachers working in state-funded schools with at least four years of experience so that they were able to provide insight into matters of CPD during the academic year 2014-2015 as explained in section 4.4.1. This decision allowed to gather a larger sample than only teachers who were evaluated, which represented about 10% of total primary teachers in Mexico, as shown in section 2.7.3.

The research participants were members of various online communities and were approached via Twitter, Facebook, and through a publicly available list of primary school headteachers (CEMABE-INEGI, 2014). Therefore, headteachers were asked to participate in the online survey and to disseminate it in their schools. This approach yielded about a fourth of the total valid sample (see section 4.6.2). A campaign to distribute the survey was designed, which included the generation of media content, such as videos, audios, and a website aimed at gaining the attention of potential participants in line with previous methodological research (Brickman, 2012; Kapp, Peters, & Oliver,

2013; Ramo & Prochaska, 2012) (see Appendix 11). Gatekeepers of Facebook groups were contacted before the dissemination of the survey. Trust on the project was enhanced by directing people to the researchers' academic profile at the School of Education website.

#### *4.6.2 Data collection procedure: online questionnaire*

The survey was designed using an online platform, namely Bristol Online Surveys (BOS). BOS was preferred over other providers because it complied with the UK's data protection regulations (Crown and database right, 2018), and was sponsored by the University of Bristol (UoB). The online questionnaire was active from August to October 2017;  $n=521$  people accessed the survey; however, according to the screening criteria,  $n=367$  responses from the target population of primary teachers with four or more years of experience working in state-funded schools integrated the valid survey responses. A total  $n=131$  of the valid sample participated in MTE, either in 2015 or 2016; such number was judged appropriate because it gathered teachers of different experiences with CPD and results in MTE, which was essential for this exploratory research.

The access to the survey was mostly through Facebook (68%) and email in second place (26%); while the rest of the teachers had access to the online questionnaire using Twitter and the researcher's website. Valid questionnaire responses gathered the perspective of teachers from most states in Mexico ( $n=31$ ) except for Baja California Sur in the North of Mexico. Notably, the four most populated states accounted for 45.6% of the participants, i.e. the State of Mexico, Mexico City, Jalisco and Veracruz (Saber es práctico, 2018). This valid sample ( $n=367$ ) is a small proportion if compared with the 400 thousand primary education teachers with at least five years of experience in the state-funded education sector (CEMABE-INEGI, 2014; INEE, 2015b). Nevertheless, the sample resembled the primary teachers' national profile regarding the teachers'

age, gender and years of professional experience (CEMABE-INEGI, 2014). More details and comparative data with national statistics is provided subsequently.

#### *4.6.3 Survey participants' demographics*

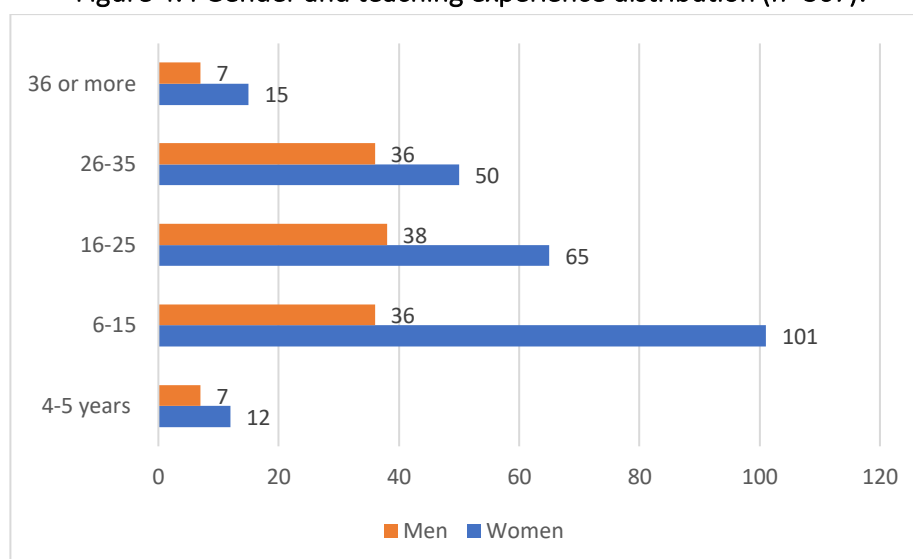
Participants are 66% ( $n=243$ ) female, and the average age in the total sample is 42 years, with a minimum of 25 and a maximum of 67 years old. Teaching experience is 19 years on average with a minimum of 4 and a maximum of 47 years. National statistics show that women represent 67% of primary teachers, the average age of primary teachers in Mexico is 39 years, and teaching experience at this level of education is 16 years (Backhoff & Pérez-Morán, 2015; INEE, 2015b)<sup>24</sup>.

**Figure 4.4** presents the distribution of surveyed teachers according to years of experience and gender. Following previous research (Thomas et al., 2018), distributing teachers into various ranges was appropriate to explore relevant patterns in their perspectives via descriptive statistics and to conduct tests of association with the type of variables mostly used in the survey, i.e. ordinal variables (see section 4.8).

In this research's sample, 86% ( $n=316$ ) undertook a teacher training programme that qualified them to teach in primary education. The rest of them held different credentials, for example, a bachelor's degree in a different field. As shown in **Table 4.2**, 43% ( $n=158$ ) of them held postgraduate degree credentials. National statistics presented in section 2.2.3.1 showed that three-quarters of primary Mexican teachers underwent a programme to teach in primary education; however, less than 10% of total hold a postgraduate degree.

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<sup>24</sup> National statistics include teachers of all teaching experiences; this research's sample only gathered teachers with four years of experience or more.

Figure 4.4 Gender and teaching experience distribution ( $n=367$ ).

Note: the teachers' experience reflects the experience at the time of the survey; therefore, the group with 4-5 years of experience are teachers with 1-2 years of experience during the academic year 2014-2015.

Table 4.2. Teachers' academic degree in the sample.

|                           | Upper-secondary;<br>technician;<br>Normal school<br>before 1983 | Normal school<br>(bachelor);<br>another<br>bachelor or<br>equivalent | Masters        | Doctorate    | <i>n</i>      |
|---------------------------|---|--|----------------|--------------|---------------|
|                           | ISCED 5B  | ISCED 5A   |                | ISCED 6      |               |
| Teachers' academic degree | 16<br>(4.4%)  | 193<br>(52.6%)   | 140<br>(38.1%) | 18<br>(4.9%) | 367<br>(100%) |

Note: ISCED: International Standard Classification of Education (1997).

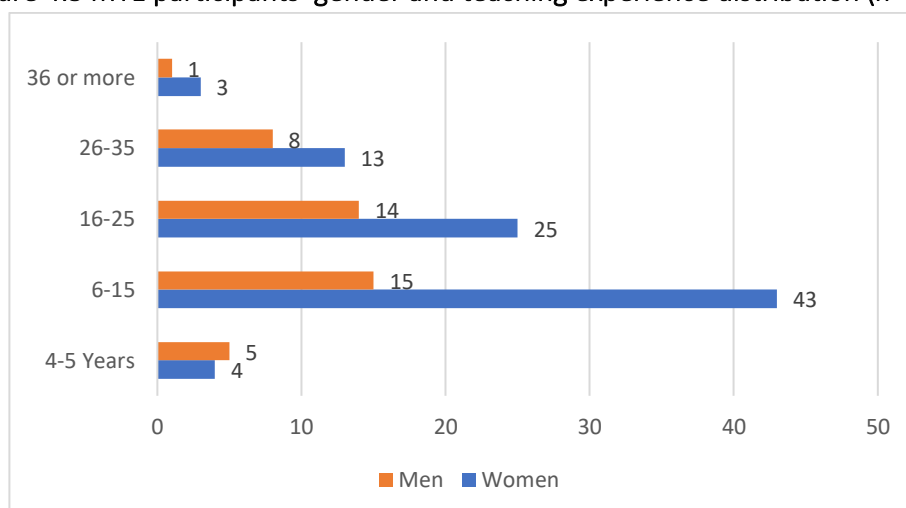
Most participants worked only either during the morning or during the afternoon as primary teachers (60%,  $n=219$ ); 16% ( $n=59$ ) of the total sample worked at a multi-grade primary school where teachers teach more than one class of different ages at the same time. Furthermore, 28.3% ( $n=104$ ) stated that their school receives indigenous background students. National statistics indicate that 75% of the teachers work in morning schools (SEP, 2017d); also, 47% work in multi-grade schools (INEE, 2015c) and 2% of the provision in primary level is for indigenous populations (*ibid*).

In summary, the sample of this research is commendable as it is highly consistent with national census data about teacher gender, age distribution, average years of experience, and professional credentials to teach in primary (Backhoff & Pérez-Morán, 2015; INEE, 2015b). However, the survey gathered a higher number of teachers with an ISCED 5A or above certification than national statistics. It included fewer teachers working in multi-grade schools as compared with national data. Still, the sample was appropriate for the exploratory purposes of this research, given its closeness with essential demographic data of primary school Mexican teachers.

#### 4.6.3.1 MTE participants in this sample

The online survey was successful at targeting  $n=131$  MTE participants in 2015 or 2016. Of them, 47.3% ( $n=62$ ) held bachelor's degree from a normal school or equivalent; a similar number held a master's degree (47.3%,  $n=62$ ), also, 4.6% ( $n=6$ ) studied a PhD, and only 0.8% ( $n=1$ ) had lower credentials. **Figure 4.5** presents MTE participants in this research according to gender and years of experience.

Figure 4.5 MTE participants' gender and teaching experience distribution ( $n=131$ ).



Of  $n=131$  MTE participants in 2015 or 2016,  $n=69$  sat the assessment voluntarily, and  $n=62$  were selected in a draw, as shown in **Table 4.3**. Notably,  $n=9$  of the total MTE participants did not receive a report due to potential misplacement by the MTE evaluators. Hence, there is no data regarding their general result in the evaluation. Although reliable data was not found to investigate more about the consequences for those whose feedback report was misplaced, headteacher Martin was given a *non-proficient* mark in MTE. He received an incomplete report after the evaluation (see section 6.4.2).

Notably, teachers with *insufficient* (2.9%) and *non-proficient* (13.2%) results in this research's sample are proportionally less than the 14% of *insufficient* results in 2015 & 2016 on average, and 43% of *non-proficient* results in the same years on average, as presented in section 2.7.3. Therefore, this research sample gathered higher proportions of teachers with 'pass' marks in MTE, and hence, it should be considered during the interpretation of the findings.

**Table 4.3. MTE participants in 2015 & 2016.**

|              | To retain post |      |              |            |      |             |       | Entry & promotion |      |                |            |       |             |
|--------------|----------------|------|--------------|------------|------|-------------|-------|-------------------|------|----------------|------------|-------|-------------|
|              | Voluntary      | Draw | Insufficient | Sufficient | Good | Outstanding | Total | Voluntary         | Draw | Non-proficient | Proficient | Total | Grand total |
| <b>2015</b>  | 8              | 36   | 0            | 9          | 19   | 16          | 44    | 23                | 20   | 2              | 26         | 28    | 72          |
| <b>2016</b>  | 12             | 13*  | 2            | 5          | 13   | 5           | 25    | 5                 | 5*   | 5              | 20         | 25    | 50          |
| <b>Total</b> | 20             | 49   | 2            | 14         | 32   | 21          | 69    | 28                | 25   | 7              | 46         | 53    | 122**       |
| <b>%</b>     | 28.9           | 71.0 | 2.9          | 20.3       | 46.4 | 30.4        | 100.0 | 52.8              | 47.1 | 13.2           | 86.8       | 100.0 | 100.0       |

\* These teachers might have felt compelled to participate in MTE following a direct invitation from the education authority or the SNTE (see section 2.7). Thus, their participation in 2016-MTE was perceived as a selection via a draw, rather than voluntary as it should have been for all teachers in that year.

\*\* The sample is  $n=122$  given that the education authority might have misplaced  $n=9$  teachers' results.

## 4.7 Interviews recruitment, data collection, and participants' characteristics

### 4.7.1 Recruitment strategy: interviews

Participants for interview were selected via purposive maximum variation sampling (MVS).

According to Etikan (2016, p. 3), 'the idea behind MVS is to look at a subject from all available



angles, thereby achieving a greater understanding. Also known as "Heterogeneous Sampling", it involves selecting candidates across a broad spectrum relating to the topic of study'. Teachers and headteachers interested in an interview optionally provided their contact details in the online survey, and ten of them were chosen as follows to ensure breadth and balance of perspectives. i) eight teachers who were evaluated under MTE, two from each possible result in the assessment, i.e., *insufficient; sufficient; good; outstanding*; ii) and two headteachers, one *non-proficient* and one *proficient*. Achieving representation of the range of participants' years of experience and type of participation in MTE, e.g. *voluntary/draw* in the sample was carefully considered for the integration of interviewees. A variety of teachers' places of residence can also be noted in section 4.7.3.

Separately, three policymakers were invited for an interview via institutional email lists: one each from the SEP, INEE and SNTE. The inclusion of policymakers' perspectives via interviews was appropriate to gather insight from those in charge of making and executing the policy. Since these latter three participants occupied high-ranking positions in their respective organisations, and therefore, were busy personnel, asking them to respond to an online questionnaire on top of the already negotiated interviews might have discouraged some of them to take part in the research. Thus, no survey data was collected from these participants.

Since the purpose of the interviews was to collect further in-depth data from a wide-angle perspective, these  $n=13$  individuals were considered an appropriate sample for the purposes and scope of PhD research. No gatekeepers were contacted because teachers and headteachers volunteered to be interviewed, and policymakers were contacted directly as well.

#### *4.7.2 Data collection procedure: interviews*

The interviews were conducted between November 2017 and January 2018. Eleven interviews were face-to-face and took place in the town of residence of the participants. However, due to unexpected circumstances, two participants were interviewed via video-call without it severely affecting the procedure, except for a few times when communication was restarted due to poor Internet connexion. Teachers and headteachers were interviewed first, and policymakers later. Drawing on previous research (Deakin & Wakefield, 2014), rapport was initiated via email communications with the participants by solving their questions about the interview. The interviews took between 35 and 55 minutes. All of them were recorded using two devices: an audio-recorder and a cell-phone. The participants were given consent forms that included the researcher's email address to maintain communication if needed. Teachers and headteachers received the equivalent to £20 per interview, and policymakers a gift of a similar price, in no case incentives were given as a form of payment.

#### *4.7.3 Interview participants' characteristics*

There is a representation of participants from three regions of Mexico: The South-west, Central Mexico, and the South-east, as shown in **Table 4.4**. However, although the online survey gathered responses from most parts of the country, there are no teachers from the North of Mexico concerning interviews because there were no volunteers from that region. This situation should be considered during the interpretation of the findings. The names of all interviewees are pseudonyms to guarantee their right to anonymity.

**Table 4.4. Teachers and headteachers who participated in interviews.**

| Pseudonym | Result in MTE  | Mode of participation in MTE | Place of residency | Years of experience | School grade they teach            |
|-----------|----------------|------------------------------|--------------------|---------------------|------------------------------------|
| Simon     | Insufficient   | By draw                      | South-west         | 4                   | 1 <sup>st</sup> to 6 <sup>th</sup> |
| Rose      | Insufficient   | By draw                      | South-west         | 24                  | 1 <sup>st</sup>                    |
| Victor    | Sufficient     | By draw                      | South-west         | 32                  | 4 <sup>th</sup>                    |
| Emma      | Sufficient     | Voluntary                    | Central Mexico     | 7                   | 2 <sup>nd</sup>                    |
| Paula     | Good           | By draw                      | South-east         | 30                  | 6 <sup>th</sup>                    |
| Julia     | Good           | Voluntary                    | Central Mexico     | 13                  | 3 <sup>rd</sup>                    |
| Leon      | Outstanding    | Voluntary                    | South-east         | 11                  | 3 <sup>rd</sup>                    |
| Tanya     | Outstanding    | Voluntary                    | South-east         | 9                   | 2 <sup>nd</sup>                    |
| Martin    | Non-proficient | By draw                      | South-west         | 36                  | Headteacher                        |
| Oscar     | Proficient     | Voluntary                    | South-west         | 9                   | Headteacher                        |

Regarding policymakers who agreed to be interviewed, **Table 4.5** shows that given their high-ranking duties in each of the three main organisations involved in the implementation of MTE, the three participants reside in Central Mexico where headquarters of SEP, INEE and SNTE locate. The importance of these participants in this investigation lies in the kind of views they may provide as forefront implementors of the TES, and knowledgeable of the challenges and possibilities of MTE to improve the quality of state-funded education.

**Table 4.5. Headteachers and policymakers who participated in interviews.**

| Pseudonym | Result in MTE | Mode of participation in MTE | Place of residency | Years of experience | Professional role in the education system |
|-----------|---------------|------------------------------|--------------------|---------------------|---|
| David     | N/A           | N/A                          | Central Mexico     | 35                  | Policymaker                               |
| Helen     | N/A           | N/A                          | Central Mexico     | 40                  | Policymaker                               |
| Alex      | N/A           | N/A                          | Central Mexico     | 25                  | Policymaker                               |

## 4.8 Quantitative data analysis

This section presents the procedure and decisions made concerning data cleaning and analysis of the dataset arising from the online survey. The survey results were analysed using SPSS software, and are mainly reported using descriptive statistics. Nevertheless, inferential statistics were used to explore relevant patterns of interest to this research, and that may provide theoretical and

methodological orientation for future inquiry based on random samples (Banerjee & Chaudhury, 2010; Onwuegbuzie & Leech, 2005). Regarding data cleaning, the dataset was checked for duplicates following Johnson's (2001, cited in Gosgling, Vazire, Srivastava, & John, 2004) approach which consisted of scanning all responses looking for consecutive entries which seemed identical; Microsoft Excel was employed for this task finding  $n=0$  duplicated cases. Further decisions on the data set concerning the number of days in CPD during the years explored in this research (2014-2015 and 2016-2017) can be consulted in Appendix 12. Such data was considered not reliable, and hence, it was not included in the reporting of findings.

#### *4.8.1 Descriptive statistics*

Descriptive statistics, including frequencies and percentages for ordinal and nominal responses, were used to present the extent of participation in CPD and perceived impact on the practice during the years explored in this research in line with RQ1, RQ3 and sub-questions. Furthermore, according to conventional reporting of Likert-type variables, particularly TALIS reports (OECD, 2014), the responses that reflect positive views such as moderate/large, moderate/much, and agree/totally agree were reported together.

Continuous variables were reported using the mean as a measure of central tendency, and standard deviation as a statistic that captures the dispersion of data (Field, 2009). Teachers' age, years of experience and the number of days spent in CPD in a given year are some examples of continuous variables that were reported in that manner. Such statistics were needed to explore further differences and associations among relevant variables that added information in response to the research questions. The mean and standard deviation of ordinal variables were reported to illustrate the perspectives of teachers and the extent of agreement in each case as relevant. These statistics were considered more informative than, for instance, the median, given the limited

number of options of scale response in the questionnaire items. Nevertheless, it is essential to acknowledge that no claim of equidistance between response options is made, e.g. little impact, moderate, much; and further, that the mean is not used in non-parametric statistical tests, but analyses relied on ranked data (Corder & Foreman, 2009; Field, 2009). The next section addresses the inferential statistics used in this research.

Summaries of descriptive statistics can be consulted in Appendix 9.

#### *4.8.2 Inferential statistics: tests of association and difference*

Inferential statistics were employed to assist in identifying and describing any particularly strong patterns and relationships in the data. The statistical tests employed are non-parametric, which are appropriate under certain conditions, in this case, because most variables' level of measurement in the online questionnaire are nominal or ordinal rather than continuous (Corder & Foreman, 2009; Field, 2009). Inferential statistics addressed different aspects of the three research questions as follows. As part of the investigation into the opportunities for CPD during 2014-2015 as in RQ1, and the motivations of teachers to take CPD, the relationship between participation (or not) in CPD before 2015-MTE, and participation (or not) in MTE was investigated using a Chi-Square test of independence (Corder & Foreman, 2009; Gonzalez-Chica, Bastos, Duquia, Bonamigo, & Martínez-Mesa, 2015). The test was used to examine the association between participation in state-funded CPD and study groups before 2015-MTE, also in response to RQ1.

To garner evidence concerning the strengths, weaknesses and unintended consequences of MTE, as in RQ2, a Mann-Whitney U test of difference was used to investigate differences in the distributions of teachers' results in MTE (**to retain post group**) and the nature of their participation, e.g. *voluntary* or *via a draw*. This latter was to explore any potential biases in the assignment of

marks in MTE based on the type of participation. Moreover, a Chi-square test of independence was employed to examine the **entry & promotion group** and their results in MTE, i.e. *non-proficient* and *proficient*. Likewise, the relationship between teachers' results in MTE and years of experience, which were expressed in the form of ordinal variables was examined via a Kendall's Tau b test of association (de Vaus, 2002; Field, 2009). Subsequently, the distributions of the teachers' results in the **entry & promotion group** were contrasted using a Mann-Whitney test of difference and their years of experience considered.

Concerning RQ3, mainly about the teachers' CPD needs following MTE, a Kendall's Tau b test of association was employed to investigate the results of teachers in the **to retain post group** and the number of CPD-subjects needed after the evaluation. Like in a previous example, teachers in the **entry & promotion group** were also examined for differences in the distribution of results in MTE considering in this case, the number of CPD-subjects needed as self-perceived via a Mann-Whitney test of difference. Participation in CPD after MTE, as in RQ3, was investigated by exploring the relationship between training in 2014-2015 and 2016-2017 via a Chi-square test of independence. The number of days in CPD in 2014-2015 and 2016-2017 was compared using a Related-Samples Wilcoxon Signed Rank Test to gather information about the differences of CPD before 2015-MTE and after MTE. Nevertheless, these analyses were not reported in the findings, but can be consulted in Appendix 12.

#### 4.9 Qualitative data analysis

In order to address the three research questions mainly RQ2, data collected via the open-ended items in the online questionnaire and semi-structured interviews *verbatim* transcripts were analysed using Thematic Analysis (TA) (Braun, Clarke, & Terry, 2015). There are deductive as well as inductive approaches to TA. In the deductive method, themes are drawn from concepts

identified and defined in previous research; such terms are then sought in the data. The inductive approach operates under flexible and creative processes of coding and building themes (*ibid*). Using metaphors, Braun et al. (2015) depict the first method as one in which ‘the researcher is like an archaeologist digging through soil to discover buried treasures’ (*ibid*, p.96); whereas in the second approach, ‘the researcher is like a sculptor, chipping away at a block of marble’ (*ibid*).

In this research, a hybrid TA was employed; that is, the deductive and inductive approaches were used in tandem during the analysis of data. The method is consistent with the chosen philosophy and methodology for this inquiry. As such, the following five overarching thematic areas, which resemble critical aspects of the research questions, were used to begin the processes of TA.

1. CPD before 2015-MTE
2. MTE strengths
3. MTE weaknesses
4. MTE unintended consequences
5. CPD after MTE (2016-2017)

#### 4.9.1 Steps one to three of thematic analysis

Following Braun and Clarke (2006, p. 87) approach to TA, see **Figure 4.6**, the researcher [1] started a deep engagement with text data to understand the perspectives of the participants closely, and being able to go back and re-read any passages that might add to knowledge on the research topic.

**Figure 4.6 Braun and Clarke TA approach.**

- |  |
|--|
| <ol style="list-style-type: none"> <li>[1] Familiarising with data</li> <li>[2] Generating initial codes</li> <li>[3] Searching for themes</li> <li>[4] Reviewing themes</li> <li>[5] Defining and naming themes</li> <li>[6] Producing the report.</li> </ol> |
|--|

Subsequently, [2] some initial codes were generated. According to Saldaña:

A code in qualitative inquiry is most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data (2010, p. 3).

These initial codes were related to both the overarching thematic areas and new ideas that added knowledge relevant to this investigation. By integrating codes into more comprehensive constructs, [3] thematic generation began. In this report, 'a theme captures something important about the data in relation to the research question, and represents some level of patterned response or meaning within the data set' (Braun & Clarke, 2006, p. 82). In a follow-up paper, Braun and Clarke emphasise that themes do not emerge,

as if [the] dataset was a pile of crocodile eggs, and analysis involved watching the eggs until each baby crocodile (theme) emerged, perfectly formed, from within. If only it were so easy. Searching for themes is an *active* process, meaning we generate or construct themes rather than discovering them (Braun & Clarke, 2012, p. 7).

A second researcher agreed to participate in phases [2] and [3] of the analysis. Although Braun and Clarke's (2006) approach is recommended in the context of manual data coding, the method is compatible with computer-assisted procedures (Braun et al., 2015). Thereby, NVivo software for IOs was used to store and flexibly explore the texts. Furthermore, after discussing these choices with Braun and Clarke (personal communication, June 21<sup>st</sup>, 2018), it was decided not to compute inter-coder reliability scores. Mainly, because the involvement of a second reviewer aimed to contrast general patterns in the data, not to confirm the presence of predefined themes solely. This decision was appropriate to allow flexible construction and reformulation of codes and themes during the later stages of data analysis.



#### 4.9.2 Steps four to six of thematic analysis and the generation of common and other themes

Subsequently, an active process of [4] review of a series of themes took place. This phase involved several actions to keep the most relevant themes, including the redefinition of themes, discarding, renaming, and replacing themes when necessary. The next step [5] consisted of the organisation and definition of themes. During this phase, the themes generated from headteachers and policymakers were clustered, as these participants shared a degree of authority and interest in the implementation of MTE; teachers' themes were treated separately. This method was useful for presentation of findings as follows. Themes reflecting an agreement between at least one headteacher/policymaker and one teacher were named common themes; other themes only generated among teachers or at least one headteacher/policymaker were addressed and highlighted separately. In the finding's Chapters, common themes will be emphasised with [C], and other themes with [O]. **Table 4.6** exemplifies a common theme.

**Table 4.6. A common theme relating to MTE strengths and corresponding codes.**

| RQ addressed | Theme [C]  | Codes from teachers  | Codes from policymakers and headteachers  |
|--------------|--|--|---|
| 2            | MTE was perceived as an appropriate framework for teacher hiring and career improvement. | MTE facilitates salary improvement; opportunities to become a tutor; clearness on who gets rewards; do not need the union to become teacher. | Salary improvement within the governments' budget; young teachers get promoted; clearness on who gets rewards |

Furthermore, **Table 4.7** summarises the number of common themes and other themes presented in the findings Chapter. A detailed summary of the codes integrating each theme can be consulted in Appendix 13.

Table 4.7. Thematic areas and the number of themes reported in each one.

| RQ addressed | Thematic areas              | Number of common themes in each thematic area | Number of other themes only found among authorities or teachers separately |
|--------------|-----------------------------|---|--|
| 1            | CPD before 2015-MTE         | 2   | 2  |
| 2            | MTE strengths               | 2   | 1  |
| 2            | MTE weaknesses              | 2   | 2  |
| 2            | MTE unintended consequences | 3   | 1  |
| 3            | CPD after MTE (2016-2017)   | 4   | 4  |

The last procedure in the TA approach followed involved [6] an ongoing construction of arguments that presented the contribution to knowledge coming from the sample collected in this research. This process started at the findings Chapters and continued throughout the remainder of this thesis.

#### 4.10 Mix or integration

For a study to rightfully be named MMR 'the findings must be mixed or integrated at some point' (Johnson & Onwuegbuzie, 2004, p. 20). A systematic review of the literature (Mayoh & Onwuegbuzie, 2014) revealed that a majority of the existing research articles following MMR design execute some integration in the discussion part. In this research, integration started in the results Chapters. If the results were presented separately, the report of findings would have been repetitive in no small extent because much of the qualitative findings match and provide further details to the quantitative data. In this regard, Johnson and Onwuegbuzie posit:

If findings are corroborated across different approaches then greater confidence can be held in the singular conclusion; if the findings conflict then the researcher has greater knowledge and can modify interpretations and conclusions accordingly. In many cases the

goal of mixing is not to search for corroboration but rather to expand one's understanding (2004, p. 19).

To give an example, in section 5.2.1, findings relating to availability and the extent of participation in CPD before 2015-MTE revealed high involvement of teachers in *formal* CPD. Nevertheless, quantitative data alone would be limited to provide insight into who might self-perceive excluded from such training and why, and whether the CPD available to teachers was related to traditional content knowledge or was it focused on something else. These are data that interview participants provided and that together with survey data, facilitate a better approach to knowledge on the topic. Integration continued throughout the discussion Chapter, where a dynamic and critical conversation between the findings and the literature Chapters provided targeted responses to the three research questions.

#### 4.11 Quality of data, analysis, and findings

Several decisions made before, during, and after data was collected contribute to the quality of the information, analyses and answers given to the research questions of this inquiry. One of these critical steps were pilot studies. The questionnaire utilised, as well as the interview protocols were tested with participants from the target group of teachers and authorities of interest. Based on these trials, the two instruments were improved, which enhanced their capability to obtain quality data from the participants.

Furthermore, the positionality of the researcher was constantly considered to minimise the potential risks of researcher bias. Being reflexive in this study meant to acknowledge the researcher as an insider, human, and hence, owner of experiences as a primary teacher. Thus, it implied that the researcher continuously questioned his beliefs about the research problem. In other words, reflexivity 'describes the capacity of any system of signification to turn back upon itself, to make

itself its own object by referring to itself: subject and object fuse' (Myerhoff & Ruby, 1982, p. 2). Researchers' values can affect the way data is collected, for example, by dropping questions which are best not to ask or rejecting participants that may provide accounts that do not favour the researchers' viewpoints. One example of the rigour of this piece of research can be appreciated in the integration of a diverse and balanced sample of those in direct contact with the procedures and consequences of MTE.

Moreover, during data analyses and presentation of findings, the researcher was careful in making a fair representation of the participants' perspectives about the topic. This stage of research was accompanied by other PhD researchers and the broader academia in conferences and seminars following this purpose (see, for example, Cortez, Thomas, & Moreno, 2018; Cortez & Thomas, forthcoming). Finally, the scholarly work presented in this thesis is arguably more trustworthy as it used various inquiring methods to triangulate (Creswell, 2014; Johnson & Onwuegbuzie, 2004) the data to reach more comprehensive nuanced answers to the research problem.

#### 4.12 Ethical considerations

This research followed the ethical guidelines from the British Educational Research Association (BERA, 2011) and the School of Education ones, which were critically reviewed and discussed with two PhD students who provided valuable advice on several matters (see Appendix 14). The following issues were addressed:

##### *4.12.1 Access to online communities and interviewees*

The administrators of online networks were contacted and asked for permission to interact with the members of their communities. The researcher provided to gatekeepers and teachers his

contact details and other professional references such as his academic profile at the SoE website to show that the purpose of the study was genuine.

Similarly, volunteers for interview who voluntarily provided their contact details at the end of the online questionnaire were given all relevant data about the aim of the research and prompted them to contact the researcher if in doubt about this part in the investigation.

#### *4.12.2 Consent forms for both data collection methods and the right to withdraw*

The online questionnaire and the interviews started with a consent form explaining the purpose of the research, their rights as research participants and the researcher's contact details in case of needing clarification. In all cases, the participants were able to leave the research if decided at any point during data collection. The interviewees were prompted to contact the researcher if they changed their mind and decided that their accounts were not included in the final report.

#### *4.12.3 Right to anonymity and confidentiality throughout the research*

Given the climate surrounding MTE at the time of the research, many teachers expressed their concerns that their identity might be disclosed. Therefore, the rights of the participants to anonymity and confidentiality were guaranteed via various procedures. Regarding the online survey, no data was collected that would identify the participants individually. However, those who voluntarily provided their contact details were ensured that such data would not be shared with anyone else and that it would be stored separately from the survey database. About the interviews, it was explained to the participants that their name would be changed at the data analysis and report phases of the research; furthermore, any data that would lead to identification would be stored separately from the texts arising from the interview.

#### *4.12.4 Data protection and data storage*

Data such as the online questionnaire dataset, audios and interview transcripts were stored and password protected in BOS and the UoB remote desktop, and this was communicated to the participants.

Finally, before conducting the inquiry, a dedicated panel at the UoB granted clearance to proceed with the research.

### 4.13 Methodological limitations

#### *4.13.1 Scope and sample size*

Collecting and analysing qualitative and quantitative data by a single researcher is considered difficult, expensive and time-consuming (Creswell, 2014; Johnson & Onwuegbuzie, 2004). Taking this into account proved appropriate to keep the scope and size of the study manageable for a single researcher. Although the online questionnaire gathered participants from most parts of the country, in practice, computer users and those enrolled in online social networks were the people who most likely took part in the study. Thus, the method of data collection might have excluded those residing in areas where the Internet is less available such as rural areas. Moreover, since the focus of the instrument was on MTE and its relation to CPD, given the political nature of the issues addressed, potential participants who were not interested in disclosing their views about the policy might have also been missing in the findings reported. Furthermore, the sample size is small and captured a few teachers with 4-5 years of experience, as well as those with 36+ years of experience. Likewise, the questionnaire, which draws on the Spanish language version of TALIS, was not translated into any of the indigenous languages of Mexico, potentially limiting its scope among those teachers.

As mentioned, volunteers for an interview concentrated in half of the Mexican territory. Therefore, the research's findings may be more representative if teachers from all regions participated. Furthermore, most responses came from teachers who succeeded in the evaluation; thus, their views about MTE and the usefulness of CPD before and after the assessment might divert from those who obtained *insufficient* and *non-proficient* marks.

#### 4.13.2 Survey design

The online questionnaire is an adaptation of the OECD's TALIS, which allowed exploring issues concerning CPD among primary teachers in Mexico. Nevertheless, the changes made to the original items might limit direct comparison with TALIS reports, and hence, the findings should be read taking this into account. Also, teachers were asked in Autumn 2017 to remember situations that happened in 2014-2015, which is not recommended because old memories are less accurate (Williams, 2003). Still, during the pilot studies, the participants declared that the information asked could be remembered without a problem. Furthermore, to maintain a reasonable length of the questionnaire, below the 20 minutes to complete, data to make direct comparisons between CPD before and after MTE was not collected regarding all items pre-MTE but supplemented with interview information. That is, to avoid exhaustion, and potential high drop-out from the study, the questionnaire tackled, mostly, perceptions about CPD before MTE and general perceptions on MTE procedures and the feedback report.

Nevertheless, this study focused on the MTE participants' views, and hence, in that sense, dedicating a good deal of coverage to their qualitative insights was considered appropriate and balanced the lack of quantitative data about participation in CPD after MTE. Another downside of the survey regards to the potential confusion of days in CPD before and after MTE (see Appendix 12), a reason why it was considered most appropriate not to use such data in the reporting of

findings. In the future, it would be necessary to be more explicit about the period asked the participants, in this case, participation in CPD within 365 days.

#### 4.13.3 Self-report data

Both the online survey and the interviews provided information as self-reported by the voluntary participants. In that sense, this empirical data is subject to the limitations inherent to the modes of collection and the so-called social desirability. Richman, Kiesler, Wesiband, and Drasgow define this concept as follows:

Social desirability distortion refers to the tendency by respondents, under some conditions and modes of administration, to answer questions in a more socially desirable direction than they would under other conditions or modes of administration (1999, p. 755).

In a meta-analysis of the literature spanning from 1967 to 1997, Richman et al. (1999) found that assuring anonymity to the participants is efficient in reducing socially desirable responses (*ibid*). Since the online questionnaire utilised in this study guaranteed anonymity to the participants, and sensible data, such as the teachers' results in MTE was collected via the survey, based on the previous experience, it is conceivable that the empirical data faithfully reflects the participants' perspectives. Nevertheless, the degree of socially desirable answers was not evaluated.



## 5 CPD before 2015-MTE findings

*“Before MTE, only the headteacher used to visit my classroom, but now, this evaluation caught us all unready” (Victor, sufficient MTE).*

### 5.1 Introduction

This Chapter presents the findings relating to the extent of participation in *individual-oriented* and workplace CPD managed or directly provided by the state (*formal CPD*) during the academic year 2014-2015. Participation in *informal* CPD, including study groups, is also addressed. The perceived quality, pertinence and impact of CPD on the practice are analysed, and the participants’ responses about these latter aspects are compared according to their teaching experience. The data revealed high participation in various CPD opportunities and perceived high impact on the teachers’ practice among the most common professional development options taken.

This exploration of teacher CPD before 2015-MTE, which is not available from previous sources on a similar topic is crucial for understanding the baseline from which MTE departed for monitoring teachers’ performance. Furthermore, it is essential for comparison with the changes triggered by MTE, mainly regarding CPD opportunities following the teachers’ assessments. The total surveyed participants ( $n=367$ ) and thirteen interviewees contributed to this Chapter. As mentioned in the methods Chapter, the findings concerning thematic analyses are symbolised with [C] for common themes, that is, when headteachers/policymakers and teachers provided insight into an issue. When the interview participants yielded data to create themes only found among teachers or headteachers/policymakers separately, these instances are signposted with [O], meaning other themes.

## 5.2 Findings regarding CPD opportunities before 2015-MTE

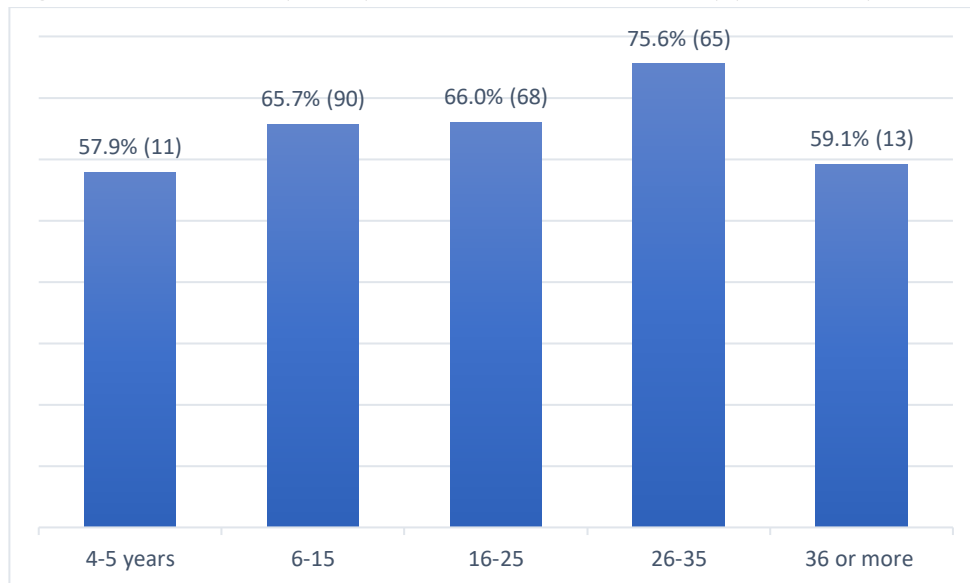
This first section reports on the findings regarding the research question 1, and presents some tentative explanations, although a more extended discussion is provided in Chapter 8. Further results related to this question are provided in section 5.3.

RQ1: What were the opportunities (formal and informal) for CPD that teachers had before 2015-MTE?

### 5.2.1 The extent of participation in formal individual-oriented CPD opportunities

Of the total valid sample of the online survey ( $n=367$ ), more than two-thirds (67%,  $n=247$ ) of the teachers took *individual-oriented formal* CPD, besides school staff CPD meetings, during the school year 2014-2015. As shown in **Figure 5.1** the proportion of take-up in CPD within each teaching experience range presents a sustained increase starting at six years of experience and up to 35 years. Additionally, the youngest and the more senior teachers show lower proportions of participation in CPD as compared with other teachers in the sample. Still, these groups were less numerous than teachers of the other teaching experience groups. There is no statistical evidence of dependence between participation/no participation in CPD and teaching experience according to a Chi-squared test of independence  $\chi^2(4, n=367) = 4.355, p = .360$ . Therefore, although about a third of the total sample did not take *formal* CPD during 2014-2015 ( $n=120, 32.7\%$ ), there is little evidence that CPD was a privilege of a group of educators based on the characteristic explored.

Figure 5.1 Number of participants in CPD in 2014-2015 by years of experience.



Note: percentages are relative to subsamples by teaching experience group; (n) in parentheses.

#### 5.2.1.1 Relationship between participation in MTE and formal CPD before 2015-MTE

It was also found that MTE participants were more likely to take CPD before the evaluation (77%) than those who were not evaluated (62%)  $\chi^2(1, n=367) = 8.885, p = .003$ . These results may indicate that teachers who knew about their participation in MTE beforehand, either via a draw or voluntarily, sought additional preparation for the assessment. Nevertheless, these findings contrast with the insight provided via interviews on the availability of CPD during that year.

#### 5.2.1.2 [O] – CPD was scarce, and where available, it was related to MTE phases

Interviewed teachers who reported obtaining *insufficient* and *non-proficient* results in MTE, affirmed that *formal* CPD seemed less accessible during the academic year 2014-2015, and argued that it was challenging to find CPD in the traditional subjects. Instead, available training was related to MTE phases; however, such options did not reach all teachers as noted by two teachers:

*“A list of CPD programmes was released until November 2017; there were no courses during the previous years, but only about MTE” (Emma – teacher, sufficient MTE)*

*“I did not receive training for MTE, and I did not know how to do the writing for the lesson plan phase. It is what I failed in” (Rose - teacher, insufficient MTE).*

These accounts regarding less CPD availability before 2015-MTE suggest that, in some states, the CPD offered related to the teacher evaluation, more than with traditional teacher development options. Nevertheless, these findings contrast with quantitative data which indicates that the participants had access to a myriad of development options in the more conventional content knowledge CPD, as further examined in section 5.3.1.

### *5.2.2 Most common formal individual-oriented CPD-formats*

Among the surveyed participants that undertook *formal* CPD in 2014-2015, workshop was the most common CPD-format followed by diploma, as shown in **Table 5.1**. These are short CPD options which vary in length from one to five days (Backhoff & Pérez-Morán, 2015; SEP, 2012). These findings were expected since these CPD options are traditional and well-established in this context (see section 2.5.2). The response option master-PhD managed or outsourced by the state does not reflect a high provision of this level of education to teachers because 9% ( $n=33$ ) of the surveyed participants took postgraduate degrees, which may indicate a lower availability or lesser interest in these certificates.

Surveyed teachers used mentoring-coaching less often than the rest of the options in the questionnaire item, which is reasonable given that such CPD format was not commonly in place before 2015-MTE (Backhoff & Pérez-Morán, 2015). To some extent, its provision by the state to

the few teachers who stated having undertaken CPD this way might respond to local initiatives or school-led projects. Nevertheless, these data provide a useful baseline against which to compare the extent of provision of mentoring-coaching to teachers after 2015-MTE.

**Table 5.1. CPD-formats teachers undertook during 2014-2015.**

| Item                                   | Frequency | Per cent |
|--|-----------|----------|
| Workshop                               | 180       | 49.0%    |
| Diploma                                | 72        | 19.6%    |
| Conference or Seminar                  | 48        | 13.0%    |
| Master or PhD                          | 33        | 9.0%     |
| Observing another school               | 26        | 7.0%     |
| Individual or group education research | 26        | 7.0%     |
| Skill development somewhere else       | 24        | 6.5%     |
| Mentoring-coaching                     | 17        | 4.6%     |

Note: Percentages correspond to the sample  $n=367$ . Categories are not mutually exclusive, and hence the percentages do not sum up to 100%.

### 5.2.3 Most prominent CPD providers arranged by the State

As shown in **Table 5.2**, one-third of the surveyed participants visited a *teacher centre* to receive training. CPD provided by the SEP personnel appears in second place. Contrarily, teacher training colleges were the least active concerning CPD provision, which is reasonable given their demarcated role as ITE institutions. Teacher Tanya noted the little involvement of normal schools in the continuous training of teachers via the following example:

*“I need to learn more about inclusion because at the teacher training college, they did not teach me how to work with SEN, what strategies to use, nor even where to find information about it. Therefore, I think, normal schools should be part of the ongoing teacher training”. (Tanya, Outstanding MTE).*

Table 5.2. CPD-providers arranged by the State during 2014-2015.

| Item   | Frequency | Per cent |
|--|-----------|----------|
| Teacher centre   | 131       | 35.7%    |
| Secretariat of Education (SEP) personnel <sup>25</sup> | 71        | 19.3%    |
| Private higher education institution                   | 44        | 12.0%    |
| Independent advisor                                    | 43        | 11.7%    |
| Public higher education institution                    | 42        | 11.4%    |
| Non-for-profit organisation                            | 15        | 4.0%     |
| Headteacher or a school colleague                      | 10        | 2.7%     |
| Teacher training college (Normal schools)              | 8         | 2.2%     |

Note: Percentages correspond to the sample  $n=367$ . Categories are not mutually exclusive, and hence the percentages do not sum up to 100%.

These findings reveal that state-funded CPD providers were prominent among the participants. Still, the emergence of market-like teacher counselling as a response to MTE started to become evident during 2014-2015. For instance, independent advisors and private higher education institutions permeated teacher CPD in a similar proportion to that of public universities. This phenomenon was not documented before the enactment of MTE (see section 2.5).

In sum, before 2015-MTE, most surveyed teachers participated in *formal individual-oriented* CPD, and the results in terms of *formats* and providers are in line with previous records of teacher CPD before the reform of 2013. The following section addresses the extent of participation in these opportunities, including workplace and *informal* CPD, which provides further evidence in response to RQ1. The perceived quality, pertinence and impact on the practice of each of these teacher development modes and a comparison of the perspectives considering teaching experience are also tackled to respond RQ1a and RQ1b.

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<sup>25</sup> This option refers to SEP personnel solely, however, other options such as higher-education institutions, teacher centres, teacher training colleges, as well as colleagues and principals may have provided CPD funded by the SEP.

### 5.3 The perceived impact, pertinence, and quality of CPD before 2015-MTE

This part of the Chapter addresses research findings regarding the following questions:

RQ1a: What do teachers say about the impact of CPD before 2015-MTE on their practice, its pertinence and quality?

RQ1b: Did the extent of participation and perceptions of how CPD impacts on their practice vary according to teachers' experience?

#### 5.3.1 Take-up in formal individual-oriented CPD-subjects and perceived impact on the practice

Four CPD-subjects were prominent among the surveyed teachers since more than 60% of them stated having participated in 2014-2015, and the perceived impact on the practice was rated as of moderate/large impact by more than 80% of those who took them. These subjects are academic content knowledge of my school grade; student assessment practices; pedagogy/instruction of the curriculum in primary education; characteristics of the previous curriculum (see Table 5.3). These CPD-subjects are related to the everyday duties of teachers in the classroom which may imply that these participants valued more the training that is practical and relevant to their teaching. It is also plausible that the options were most frequently on offer than the rest of the CPD-subjects, and hence, the relative higher participation. These findings contrast with the perceived lower availability of traditional CPD on various subjects among interviewees who obtained an *insufficient* result in MTE, potentially indicating an association between this lack of awareness and low outcomes in the new TES. Nevertheless, there is not enough evidence to affirm that was the case.

Contrarily, although the rest of the options were also taken by at least half of the survey participants, the perceived impact on the teachers' practice diminished considerably. For instance, the bottom example in Table 5.3, teaching in multicultural settings stands out because 5 out of 10

teachers received training on the matter. Still, among them, only 4 out of 10 rated it as of moderate or much impact on their practice. This issue is potentially relevant if considering the type of schools where these teachers work, a third of which provide education to indigenous backgrounds, as shown in section 4.6.3. Thus, it suggests, CPD in this aspect was weak before 2015-MTE.

**Table 5.3. CPD-subjects and perceived impact on teachers' practice.**

| <i>n</i> =367<br>(100%)                                     | [1]<br>Undertook<br>CPD | [2]<br>Moderate/<br>Large | Mean | Standard<br>Deviation<br>(SD) |
|---|-------------------------|---------------------------|------|-------------------------------|
| Academic content knowledge of my school grade               | 62.4%<br>(229)          | 89.1%<br>(204)            | 3.32 | 0.70                          |
| Student assessment practices                                | 62.4%<br>(229)          | 84.7%<br>(194)            | 3.24 | 0.76                          |
| Pedagogy/instruction of the curriculum in primary education | 62.4%<br>(229)          | 82.1%<br>(188)            | 3.18 | 0.82                          |
| Characteristics of the previous curriculum                  | 61.6%<br>(226)          | 82.3%<br>(186)            | 3.14 | 0.76                          |
| ICT skills for teaching and learning                        | 61.0%<br>(224)          | 69.6%<br>(156)            | 2.93 | 0.93                          |
| School administration & management                          | 57.2%<br>(210)          | 62.4%<br>(131)            | 2.79 | 0.94                          |
| Student discipline and behaviour problems                   | 58.0%<br>(213)          | 64.3%<br>(137)            | 2.75 | 0.97                          |
| Student counselling (e.g future studies/career)             | 56.4%<br>(207)          | 60.0%<br>(124)            | 2.65 | 0.97                          |
| Student psychological development                           | 55.6%<br>(204)          | 57.8%<br>(118)            | 2.62 | 0.88                          |
| Teaching students with Special Education Needs (SEN)        | 55.3%<br>(203)          | 53.7%<br>(109)            | 2.59 | 0.97                          |
| Teaching in multicultural settings                          | 49.3%<br>(181)          | 39.8%<br>(72)             | 2.24 | 0.91                          |

Note: Percentages in column [1] express the number of participants who undertook the specific training relative to the total number of teachers in the sample ( $n=367$ ); ( $n$ ) in parentheses. Percentages in column [2] express the number who reported that the training was of moderate or large impact relative to the number of who undertook it (as reported in column 1); ( $n$ ) in parentheses. Mean response of 4 scale answer (1: nothing; 2: little; 3: moderate; 4: large).



### ***5.3.1.1 Participation in formal individual-oriented CPD-subjects and perceived impact on the practice according to teaching experience***

The extent of participation in *formal individual-oriented* CPD-subjects according to teaching experience presents a consistent pattern across most options, see **Table 5.4**. The least experienced group of teachers (4-5 years) and the most experienced (36+ years) reported relative lowest participation in each of the CPD-subjects during 2014-2015. Although the reasons are not clear from the data, and these findings might be related to the corresponding sample size in each group of teachers, young teachers might be focused on coping with full responsibilities in the classroom, which demands their time for lesson preparations and marking. On the other hand, the most experienced might foresee their retirement or mind other businesses different from the teaching, and hence, the lower relative participation in CPD.

Furthermore, although not in all the options, there is a positive relationship between years of experience and the reported participation in CPD starting from 6 years up to 35 years of professional experience. These are the most active years of a teacher's career; thus, this engagement with the professional duties might incite higher participation in CPD over time. Nevertheless, the group of 16-25 years of experience reports relative lower participation in CPD than the neighbour groups in most options. During these years, teachers might potentially settle-down or start new professional projects which deviate their attention from CPD; again, these are tentative explanations to the observed patterns.

Regarding the perceived impact of CPD-subjects on the teachers' practice, in line with previous research (Thomas et al., 2018), among those who had experienced a CPD subject, teachers with least experience (4-5 years) rated the impact of most CPD options higher than other teachers, including the four most common and perceived most impactful opportunities mentioned in the

previous section. All these options relate to practical aspects of teaching, and hence, these findings may indicate that early career teachers might self-perceive as not adequately prepared in these areas. On the other hand, in four areas: school administration & management, student psychological development, teaching students with SEN, and teaching in multicultural settings, the most experienced teachers (36+ years) report higher perception of an impact than the other teachers. These findings suggest that experienced teachers are already knowledgeable of practical aspects of teaching, but not so in other areas such as the students' well-being and integration into the school community. That is, more senior educators gave higher regard to CPD that enabled them to impact their practice by addressing their students in realms different from content knowledge.

These results show a U-shaped pattern where early career and the more senior teachers find CPD impactful on their practice, while the middle-career teacher groups progressively find CPD useful as their professional experience augments. These findings might indicate that the teachers' needs may require CPD that addresses those specificities rather than receiving the same training across experience ranges. Participants' mean responses are presented in **Table 5.4** to provide a more nuanced summary descriptive presentation.

**Table 5.4. CPD-subjects' impact on practice according to teaching experience in 2014-2015.**

|  | <b>4-5<br/>years</b> | <b>6-15<br/>years</b> | <b>16-25<br/>years</b> | <b>26-35<br/>years</b> | <b>36+<br/>years</b> |
|--|----------------------|-----------------------|------------------------|------------------------|----------------------|
| <b>Academic content knowledge of my<br/>school grade</b> | 3.57<br>(0.53)       | 3.17<br>(0.75)        | 3.38<br>(0.62)         | 3.50<br>(0.64)         | 3.36<br>(0.67)       |
|  | 52.6%<br>(10)        | 62.0%<br>(85)         | 58.3%<br>(60)          | 72.1%<br>(62)          | 54.5%<br>(12)        |
| <b>Student assessment practices</b>                      | 3.57<br>(0.79)       | 3.21<br>(0.79)        | 3.33<br>(0.75)         | 3.30<br>(0.74)         | 3.45<br>(0.52)       |
|  | 47.4%<br>(9)         | 60.6%<br>(83)         | 60.2%<br>(62)          | 73.3%<br>(63)          | 54.5%<br>(12)        |

|   |                |                |                |                |                |
|---|----------------|----------------|----------------|----------------|----------------|
| Pedagogy/instruction of the curriculum in primary education | 3.57<br>(0.54) | 2.97<br>(0.84) | 3.29<br>(0.80) | 3.44<br>(0.73) | 3.55<br>(0.52) |
|   | 47.4%<br>(9)   | 59.9%<br>(82)  | 60.2%<br>(62)  | 73.3%<br>(63)  | 59.1%<br>(13)  |
| Characteristics of the previous curriculum                  | 3.57<br>(0.53) | 3.07<br>(0.72) | 3.26<br>(0.70) | 3.26<br>(0.69) | 3.18<br>(0.87) |
|   | 52.6%<br>(10)  | 59.1%<br>(81)  | 59.2%<br>(61)  | 70.9%<br>(61)  | 59.1%<br>(13)  |
| ICT skills for teaching and learning                        | 3.29<br>(0.49) | 2.88<br>(0.99) | 3.02<br>(1.00) | 3.04<br>(0.83) | 3.27<br>(0.65) |
|   | 47.4%<br>(9)   | 60.6%<br>(83)  | 55.3%<br>(57)  | 73.3%<br>(63)  | 54.5%<br>(12)  |
| School administration & management                          | 3.00<br>(1.00) | 2.71<br>(0.99) | 2.67<br>(0.93) | 3.06<br>(0.79) | 3.18<br>(0.87) |
|   | 42.1%<br>(8)   | 54.0%<br>(74)  | 52.4%<br>(54)  | 72.1%<br>(62)  | 54.5%<br>(12)  |
| Student discipline and behaviour problems                   | 3.43<br>(0.53) | 2.72<br>(0.97) | 2.67<br>(0.93) | 3.00<br>(0.93) | 2.82<br>(0.87) |
|   | 42.1%<br>(8)   | 56.2%<br>(77)  | 52.4%<br>(54)  | 72.1%<br>(62)  | 54.5%<br>(12)  |
| Student counselling (e.g future studies/career)             | 3.00<br>(0.82) | 2.72<br>(1.06) | 2.57<br>(0.99) | 2.80<br>(0.90) | 3.00<br>(0.77) |
|   | 36.8%<br>(7)   | 55.5%<br>(76)  | 52.4%<br>(54)  | 68.6%<br>(59)  | 50.0%<br>(11)  |
| Student psychological development                           | 2.43<br>(0.79) | 2.45<br>(0.96) | 2.64<br>(0.82) | 2.82<br>(0.82) | 3.00<br>(0.77) |
|   | 36.8%<br>(7)   | 53.3%<br>(73)  | 51.5%<br>(53)  | 69.8%<br>(60)  | 50.0%<br>(11)  |
| Teaching students with Special Education Needs (SEN)        | 2.71<br>(1.11) | 2.11<br>(1.03) | 2.62<br>(0.94) | 2.76<br>(0.85) | 2.91<br>(0.83) |
|   | 36.8%<br>(7)   | 51.8%<br>(71)  | 50.5%<br>(52)  | 70.9%<br>(61)  | 54.5%<br>(12)  |
| Teaching in multicultural settings                          | 2.14<br>(0.69) | 2.09<br>(1.00) | 2.19<br>(0.99) | 2.34<br>(0.77) | 2.55<br>(0.69) |
|   | 36.8%<br>(7)   | 47.4%<br>(65)  | 45.6%<br>(47)  | 59.3%<br>(51)  | 50.0%<br>(11)  |

Note: Grey colour cells indicate the highest mean response across five categories. Mean response of 4 scale answer (1: nothing; 2: little; 3: moderate; 4: large), SD in parentheses. Per cent indicates take-up within each column; (n) in parentheses.

### 5.3.2 Participation and perceived impact on the practice regarding formal workplace CPD

Most surveyed participants experienced monthly school staff CPD meetings, as well as intensive school staff CPD meeting, both mandatory (see section 2.8.1). **Table 5.5** shows that seven of every ten participants considered these collective-CPD methods as positively impacting their practice. Still, these findings contrast with interview teachers generally expressing in a sceptical tone about these meetings, as shown in one common theme (see section 5.3.2.2). Remarkably, the most common forms these participants took part in were also the ones rated highest, and *vice-versa*. This pattern can be described as follows; the options concerned with collective development, e.g. school staff CPD meetings were the best rated. As for superintendent and TPA, whose presence in the school is not constant, teachers rated their impact on the practice lower than the rest of the options. Overall, these participants seemed to have considered the closeness of the CPD source to their everyday practice to evaluate how impactful each option was for them.

**Table 5.5. Formal workplace CPD options and self-perceived impact on teacher practice.**

| <i>n</i> =367<br>(100%)  | [1]<br>Undertook<br>training | [2]<br>Moderate/<br>Large | Mean | SD   |
|--|------------------------------|---------------------------|------|------|
| Monthly school staff CPD meetings                              | 94.6%<br>(347)               | 72.6%<br>(252)            | 2.92 | 0.89 |
| Intensive school staff CPD meeting                             | 94.3%<br>(346)               | 70.2%<br>(243)            | 2.92 | 0.89 |
| Head-teacher classroom observation                             | 86.4%<br>(317)               | 59.6%<br>(189)            | 2.66 | 0.99 |
| School superintendent classroom observation                    | 80.7%<br>(296)               | 47.6%<br>(141)            | 2.36 | 0.99 |
| Technical and Pedagogical Assessor (TPA) classroom observation | 70.6%<br>(259)               | 42.5%<br>(110)            | 2.25 | 1.09 |

Note: Percentages in column [1] express the number of participants who undertook the specific training relative to the total number of teachers in the sample ( $n=367$ ); ( $n$ ) in parentheses. Percentages in column [2] express the number who reported that the training was of moderate or large impact relative to the number of who undertook it (as reported in column 1); ( $n$ ) in parentheses. Mean response of 4 scale answer (1: nothing; 2: little; 3: moderate; 4: large).

The broader education reform included a component to tackle this weakness of previous workplace development, namely the technical support to the school programme (see Appendix 2). However, given the limitations of the programme to provide each teacher with personalised support, it might be insufficient to exert a radical change to the culture of teacher development in the workplace. This issue, nonetheless, is beyond the scope of this research. Differences in perceptions, according to teaching experience, are presented below.

### ***5.3.2.1 Participation and perceived impact of workplace formal CPD forms on the teachers' practice according to years of experience***

The extent of participation in *formal* workplace CPD according to teaching experience presents a similar pattern to that shown in section 5.3.2, which suggests that the closer the teacher development opportunity to the teacher, the more it was experienced, see **Table 5.6**. Still, relative to the rest of the teachers, those in the 16-25 years of experience group reported less contact with headteachers, superintendent and TPA, as in classroom observations. These findings might indicate that these mid-career and mature teachers may be trusted in their job. Hence, education authorities might prefer to see them teaching less frequently than other less and more experienced teachers. In other words, headteachers, superintendent and TPA might be more concerned about monitoring the teachers' performance of less experienced to support their transition towards higher levels of professional skills and help those near retirement who might necessitate updating.

In general, there is a positive relationship between years of experience and the perceived impact of *formal* workplace CPD options on the practice. The two extreme teacher experience groups in **Table 5.6**, i.e. 4-5 years and 36+ years illustrate this pattern better. The least experienced teachers rated these CPD opportunities lower than the rest of the teachers while the most senior teachers found all the options impactful on their practice. Regarding this last point, more experienced

teachers may have learnt in practice the relevance of CPD happening at the workplace; also, they might have participated as teacher trainers at some point in their career, which may have influenced their perspective. Furthermore, workplace CPD might entail certain value that senior teachers priced, but younger teachers valued less, for example, its contribution to staff cohesion and mutual support.

**Table 5.6. Participation in *formal* workplace CPD and perceived impact considering teaching experience.**

|   | 4-5 years      | 6-15           | 16-25          | 26-35          | 36+            |
|---|----------------|----------------|----------------|----------------|----------------|
| <b>Monthly school staff CPD meetings</b>  | 2.57<br>(1.09) | 2.97<br>(0.83) | 2.93<br>(0.91) | 2.97<br>(0.97) | 3.54<br>(0.78) |
|   | 89.5%<br>(17)  | 94.2%<br>(129) | 95.1%<br>(98)  | 95.3%<br>(82)  | 95.5%<br>(21)  |
| <b>Intensive school staff CPD meeting</b> | 2.71<br>(1.20) | 2.97<br>(0.80) | 2.93<br>(0.91) | 3.00<br>(0.99) | 3.62<br>(0.65) |
|   | 89.5%<br>(17)  | 94.9%<br>(130) | 95.1%<br>(98)  | 93.0%<br>(80)  | 95.5%<br>(21)  |
| <b>Head-teacher observation</b>           | 2.50<br>(1.09) | 2.61<br>(0.97) | 2.63<br>(1.05) | 2.70<br>(0.95) | 3.38<br>(0.65) |
|   | 84.2%<br>(16)  | 86.9%<br>(119) | 80.6%<br>(83)  | 91.9%<br>(79)  | 90.9%<br>(20)  |
| <b>Superintendent observation</b>         | 2.43<br>(1.28) | 2.16<br>(0.95) | 2.51<br>(0.95) | 2.33<br>(1.02) | 3.00<br>(1.08) |
|   | 84.2%<br>(16)  | 77.4%<br>(106) | 72.8%<br>(75)  | 93.0%<br>(80)  | 86.4%<br>(19)  |
| <b>TPA observation</b>                    | 2.36<br>(1.28) | 2.08<br>(1.03) | 2.42<br>(1.07) | 2.20<br>(1.09) | 2.85<br>(1.14) |
|   | 73.7%<br>(14)  | 70.8%<br>(97)  | 64.1%<br>(66)  | 79.1%<br>(68)  | 63.6%<br>(14)  |

Note: Grey colour cells indicate the highest mean response across five categories. Mean response of 4 scale answer (1: nothing; 2: little; 3: moderate; 4: large), SD in parentheses. Percent indicates take-up within each column; (n) in parentheses.

Notably, younger teachers (4-5 years of experience) present the lowest perception of positive impact on the practice in three options: monthly school staff CPD meetings; intensive school staff

CPD meeting; and headteacher observation. Yet, the highest standard deviation, indicating differences in opinion. These findings may indicate that either, less experienced teachers are not properly integrated into matters of school staff development, or that they show reluctance to take part actively. Some of these younger teachers might, for instance, prefer other self-directed forms of professional enhancement, which will be reviewed later in this Chapter. Moreover, the differences in perceived impact among young teachers suggest that ITE and induction to teaching vary considerably, a matter that has been documented in Mexico (see section 2.2.3). In any case, addressing CPD needs of NQT is a matter that before MTE was not part of CPD provided by the state (Backhoff & Pérez-Morán, 2015), but the new TES was bound to tackle (DOF, 2013a).

### **5.3.2.2 [C] – School staff CPD meetings seem not fit for professional development**

A policymaker and a teacher considered that school staff CPD meetings, particularly those at the beginning of every academic year were not appropriate for teacher professional development, mainly because of poor delivery on the part of CPD facilitators.

*“it is always the same teacher, always the same course, always following a cascade fashion” (Alex, policymaker).*

*“It is daunting for us to go to this kind of courses because they do not have well-trained personnel” (Emma - teacher, sufficient MTE).*

The interviewees who volunteered to participate in this research might be more inclined towards expressing the downsides of their experiences with TES and CPD. Therefore, it is essential to contrast these views with survey data, which also include teachers who have not participated in MTE, and thus, might have undergone different experiences.

### 5.3.3 Participation and perceived impact on the practice regarding informal CPD

Self-learning (online) was the most common *informal* CPD arrangement among the participants, and the one rated the highest regarding the impact on the teachers' practice, see **Table 5.7**. That is, most participants experienced this form of CPD and of them, 8 out of 10 rated it as of moderate/large impact on their practice. The second most impactful *informal* CPD was consulting academic research, which 9 out of 10 participants stated having experienced it, and 8 of every 10 perceived it as of moderate/large impact on their practice. A moderate-to-large correlation between self-learning (online) and consulting academic research ( $t_b = .54, p < .001, n = 329$ ) supports the idea that participants use the World Wide Web for research purposes<sup>26</sup>. This use of the internet for research purposes, however, might refer to searching for additional activities in support of teaching content, mainly because no qualitative data could elaborate more on what research these teachers usually consult.

At the bottom of **Table 5.7**, the option education research within the school or classroom was the least common and the one rated the lowest in terms of impact. Whereas only 7 per cent of teachers participated in this type of *formal* CPD, it was much more widespread as an *informal* self-directed format, experienced by three-quarters of teachers. Moreover, among those who experienced it, 6 out of 10 rated *informal* education research within the school or classroom as of moderate/large impact on their practice. Therefore, a similar explanation to that presented about online learning may apply. That is, for some formats, teacher-led, rather than CPD directed by the State might be preferred. Furthermore, this option presents a moderate-to-large correlation with teacher study groups ( $t_b = .51, p < .001, n = 239$ ), which suggests collaborative work is occurring in the schools.

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<sup>26</sup> The rest of the *informal* CPD options also present positive and statistically significant associations of a small to medium strength and can be consulted in Appendix 15. Such findings suggest that teachers are active participants in CPD besides *formal* provision, and that a complex mix of options is occurring among these participants.



Still, teachers who chose to use these *informal* CPD forms for enhancing their practice may need support to get the most benefit from it. These findings are essential in the context of MTE, given that CPD providers are required to collect evidence of the application of new knowledge via small research projects (SEP, 2017e, 2017b).

**Table 5.7. Informal CPD options and self-perceived impact on teacher practice.**

| <i>n</i> =367<br>(100%)  | [1]<br>Undertook<br>training | [2]<br>Moderate/<br>Large | Mean | SD   |
|--|------------------------------|---------------------------|------|------|
| Self-learning, such as e-learning<br>(online)                    | 94.3%<br>(346)               | 86.4%<br>(299)            | 3.37 | 0.80 |
| Consulting academic research                                     | 90.7%<br>(333)               | 82.9%<br>(276)            | 3.18 | 0.82 |
| Conversations with fellow<br>teachers about education<br>matters | 92.4%<br>(339)               | 74.3%<br>(252)            | 3.05 | 0.89 |
| Teachers' study groups   | 75.7%<br>(278)               | 68.0%<br>(189)            | 2.92 | 0.99 |
| Use and consult of commercial<br>materials or bibliography       | 91.3%<br>(335)               | 66.9%<br>(224)            | 2.86 | 0.91 |
| Education research within the<br>school or classroom             | 73.8%<br>(271)               | 60.9%<br>(165)            | 2.73 | 1.00 |

Note: Percentages in column [1] express the number of participants who undertook the specific training relative to the total number of teachers in the sample ( $n=367$ ); ( $n$ ) in parentheses. Percentages in column [2] express the number who reported that the training was of moderate or large impact relative to the number of who undertook it (as reported in column 1); ( $n$ ) in parentheses. Mean response of 4 scale answer (1: nothing; 2: little; 3: moderate; 4: large).

### 5.3.3.1 Participation and perceived impact of informal CPD forms on teachers' practice according to years of experience

There are no significant patterns regarding the extent of participation in *informal CPD* according to teaching experience. In general, high involvement in all the CPD formats can be observed across teaching experience groups. However, the perceived impact of these forms of CPD according to years of experience ranges is threefold. First, **Table 5.8** shows that on average, 4-5 years of experience participants rated self-learning (online) and consulting academic research higher than their counterparts. These participants perceived Internet-mediated CPD forms more impactful on

the practice, which might be due to higher use of ICT among the younger generations. This inference is illustrated by contrasting the average perception of impact expressed by the more senior teachers (36+) in this sample who found self-learning (online) less impactful than the rest of the participants. About consulting academic research, younger teachers seem to value more this form of self-directed CPD than the other teachers, plausibly because of their familiarity with the online environment.

**Table 5.8. Participation in *informal CPD* and perceived impact considering teaching experience.**

|   | 4-5<br>years   | 6-15           | 16-25          | 26-35          | 36+            |
|---|----------------|----------------|----------------|----------------|----------------|
| <b>Self-learning, such as e-learning (online)</b>                 | 3.53<br>(0.74) | 3.31<br>(0.79) | 3.36<br>(0.94) | 3.40<br>(0.81) | 3.13<br>(0.91) |
|   | 89.5%<br>(17)  | 94.2%<br>(129) | 95.1%<br>(98)  | 94.2%<br>(81)  | 95.5%<br>(21)  |
| <b>Consulting academic research</b>                               | 3.40<br>(0.63) | 3.14<br>(0.84) | 3.14<br>(0.96) | 3.26<br>(0.74) | 3.20<br>(0.94) |
|   | 89.5%<br>(17)  | 88.3%<br>(121) | 91.3%<br>(94)  | 94.2%<br>(81)  | 90.9%<br>(20)  |
| <b>Conversations with fellow teachers about education matters</b> | 2.87<br>(1.25) | 2.95<br>(0.82) | 3.29<br>(0.89) | 3.03<br>(0.92) | 3.73<br>(0.46) |
|   | 89.5%<br>(17)  | 92.0%<br>(126) | 91.3%<br>(94)  | 95.3%<br>(82)  | 90.9%<br>(20)  |
| <b>Teachers' study groups</b>                                     | 2.40<br>(0.99) | 2.76<br>(1.08) | 3.05<br>(0.88) | 2.86<br>(0.94) | 3.33<br>(0.72) |
|   | 89.5%<br>(17)  | 75.9%<br>(104) | 70.9%<br>(73)  | 79.1%<br>(68)  | 72.7%<br>(16)  |
| <b>Use and consult of commercial materials or bibliography</b>    | 2.87<br>(0.74) | 2.93<br>(0.91) | 2.93<br>(1.00) | 2.81<br>(0.87) | 2.73<br>(1.03) |
|   | 94.7%<br>(18)  | 88.3%<br>(121) | 90.3%<br>(93)  | 95.3%<br>(82)  | 95.5%<br>(21)  |
| <b>Education research within the school or classroom</b>          | 2.40<br>(1.12) | 2.52<br>(1.03) | 2.73<br>(0.96) | 2.83<br>(1.01) | 3.00<br>(0.84) |
|   | 78.9%<br>(15)  | 73.7%<br>(101) | 68.9%<br>(71)  | 75.6%<br>(65)  | 86.4%<br>(19)  |

Note: Grey colour cells indicate the highest mean response across five categories. Mean response of 4 scale answer (1: nothing; 2: little; 3: moderate; 4: large), SD in parentheses. Per cent indicates take-up within each column; (*n*) in parentheses.

The other relevant findings are those related to teachers in their mid-career (6 to 25 years of experience). These participants present the highest mean response concerning the use of commercial materials or bibliography. These findings might be explained by looking at the content of traditional commercial resources to which teachers have access. These booklets and compendia usually provide extra support to teachers concerning further reading and exercises related to a given subject or topic which the students develop either in the school or at home (Echávarri & Peraza, 2017). Thus, not surprisingly, participants in this experience range value the contribution of commercial bibliography as it helps teachers reduce their involvement in designing and printing exercises concerning the applied everyday work at schools.

Furthermore, teachers in the 36+ years of experience range presented the highest perception of positive impact on practice in three informal CPD forms: conversations with fellow teachers; teachers' study groups; and research within the school or classroom. These mediums for teacher development imply a degree of collaboration and sharing with colleagues which suggests that more experienced educators acknowledge the relevance of communicating the lessons they have learnt throughout their professional career. Furthermore, a sense of belonging to the school they work at might also prompt them to perceive that research conducted within their institutes is a way to improve their teaching. On the contrary, teachers in the 4-5 years of experience group recognised these three *informal* CPD forms inversely, which may suggest that these participants tend to be more individualistic or that they are somehow excluded from collaborative CPD organised by more senior teachers. These findings are highly relevant to review in what ways MTE promotes collective forms of teacher development, mainly, which ones targeted the least experienced teachers in the schools.

### 5.3.3.2 *More on teacher participation in study groups before 2015-MTE*

Of total MTE participants in this research ( $n=131$ ), less than half joined a study group in preparation for MTE (53%,  $n=70$ ). After the evaluation, only 43% ( $n=30$ ) of MTE participants continued in the study group. Survey data indicate that teachers who participated in *formal* CPD during 2014-2015 were more likely to participate in a teacher study group in preparation for the assessments (72%) than those who did not take CPD during 2014-2015 (53%) according to a Chi-squared test of independence  $\chi^2(1, n=367) = 11.215, p < .001$ . Therefore, these findings suggest the following possible explanations: (1) some teachers are regular consumers of CPD regardless of the implementation of teacher evaluations, given the sustained involvement in *formal CPD* in 2014-2015 and teacher study groups. (2) Teacher study groups might be perceived as spaces that after participation (or not) in MTE, do not add further value to the individual as to decide to continue participating; thus, the substantial drop out observed among MTE participants.

The rationales underpinning participation in study groups before 2015-MTE as expressed in interviews ranged from surviving the upcoming assessments, to gaining knowledge to obtain a reward or promotion via MTE. This matter is further explored in the following Chapter. Based on the evidence, it is plausible that some teachers joined *formal* CPD and teacher study groups as usual partakers in training. Nevertheless, given the lower participation after participation in MTE, teacher study groups might be seen as a means to harness knowledge relevant to the evaluations, one which is no longer needed afterwards. Moreover, as posited in previous sections, study groups were also perceived as impactful on the teachers' practice, which shows the complexity of teachers' views on the worth of different forms of CPD, be it state-provided or informally taken. Although in-service teachers were by law entitled to receive guidance on MTE procedures (DOF, 2013a), the general perception is that study groups were mainly organised by non-state entities, for both NQT and those already in-service, as shown next.

### 5.3.3.2.1 [O] – Guidance on MTE was left to non-state providers

The emergence of market-based training providers might have been a response to a lack of state-provided orientation on preparation for MTE or high demand that the state was unable to address. The teachers' union prominently supported NQT teachers with training via their organisation, SINADEP. Alex suggested that:

*“This part [guidance concerning MTE for NQT] is not an obligation of the ministry of education, and they do not do it either. Thus, we said, let’s help the teachers become better in what they do and get a post” (Alex, policymaker).*

Interview data show that NQT and in-service teachers approached the teachers' union for preparation and were not charged for this service. Still, some interview participants paid fees to join study groups, generally led by counsellors who advertised their services through social media. Prices ranged between the equivalent to £40 and £80 per course, which is in line with findings from Cordero et al., (2017) research. This latter issue was not further explored as it was beyond the scope of this PhD research.

### 5.3.4 The pertinence of formal CPD delivery-modes

The perceived pertinence of state-provided CPD delivery-modes in 2014-2015 among surveyed participants was as follows. CPD delivered in-person (face-to-face) was the most reported (60.5%,  $n=222$ ) and was perceived moderate/much pertinent for development by three-quarters of those who experienced it (76.6%,  $n=170$ ). Blended learning was experienced by 41.7% ( $n=153$ ), and of them, 74.5% ( $n=114$ ) rated it moderate/much pertinent for development. Those who received online training were 46.6% ( $n=171$ ), and the pertinence they perceived, although above sixty-seven per cent, it was the lowest among these options (67.8%,  $n=116$ ). Findings from qualitative data reveal a common theme which might explain why online learning was perceived as less appropriate

for professional development than the other options. Again, these findings do not disregard the high perceptions of the pertinence of online learning for the teachers' continuing development.

#### **5.3.4.1 [C] – Potential rationales concerning the perceived less pertinence of online teacher CPD**

There are three main reasons why online teacher training might be perceived as comparatively less pertinent than in-person and blended learning options. These are uneven access to the internet across Mexico; limited knowledge of computers and the World Wide Web environment; and frustrating previous experiences with this type of CPD delivery. Regarding the first rationale, teachers and authorities agreed that a lack of access to the World Wide Web makes it difficult to participate in online CPD. For instance, there are specific contexts prone to have this kind of issues due to a lack of infrastructure or because of adverse weather conditions, particularly in the East-coast region and in the Gulf of Mexico. A policymaker and a teacher gave the following examples:

*“We have connectivity issues in Mexico City, so, what can we expect in places such as Puebla, Chiapas, or Quintana Roo, where there is less infrastructure for this?”  
(Alex, policymaker).*

*“The internet fails a lot in my locality. The routers get hit by lightning. Often, we lack Internet connection or telephone service for a couple of days, which complicates participation in online courses” (Leon - teacher, Outstanding MTE).*

About the second reason, three senior interviewees expressed that disenchantment with CPD provided using the internet might not only be one of access but one of skill. For example, at the time of the interview, teacher Rose was to sit MTE for the third and last time and had not received appropriate guidance on how to do it. She believed that the problem was her little knowledge of

computers and the internet, which was the deliver-mode her local authority chose to advise on MTE phases:

*“I know there are CPD options online, but I do not know how to access them or participate” (Rose - teacher, Insufficient MTE).*

Moreover, since online learning is a developing culture in Mexico which will require time and concrete actions to get established, teacher Leon stressed:

*“I perceive a lack of discipline among teachers regarding online learning. This kind of CPD requires much organising, hard work, disposition, and all that is what teachers are lacking.” (Leon - teacher, Outstanding MTE).*

A policymaker provided one more example:

*“One senior teacher told me: I know the process of the evaluation, I have no concerns about it, the problem is that I have never used a computer; thus, I told her: what are you waiting for?” (Alex, policymaker).*

Concerning the third reason in this common theme, two teachers and a headteacher complained about CPD via the internet stressing that it requires much more effort on the part of the teachers; however, feedback and follow-up is rarely provided, which adds to demotivating those who received training this way:

*“We uploaded the assignments, but there was no feedback at all. Therefore, I feel like I was not benefited by this course” (Leon – teacher, outstanding MTE).*

In sum, traditional *in-person* teacher training was most common and was considered pertinent. Nevertheless, online learning was also current among half of the participants before 2015-MTE. Still, the lower perception of pertinence in comparison with in-person and blended learning might be related to accessibility and computing skills which embrace complementary skills such as commitment to independent learning. Furthermore, perceptions of lack of feedback among the participants may contribute online CPD to be considered less pertinent for teacher development. Nevertheless, more than two-thirds of those who took CPD via online methods found it pertinent for their development, which suggests online learning as a viable CPD delivery-mode among these participants.

#### **5.3.4.2 *The pertinence of formal CPD delivery-modes according to teaching experience***

In general, the least experienced and the most experienced teachers were in less in contact with CPD via these delivery-modes, as shown in **Table 5.9**. Furthermore, in most cases, blended learning and internet CPD were experienced by less than half of the teachers in 2014-2015. These findings are relevant in the light of changes to CPD delivery following the education reform of 2013, which, as mentioned in the context Chapter, prioritises in-service individual-oriented teacher training at a distance (Cordero et al., 2017; SEP, 2017b), clearly, a less common CPD mode among these participants.

Regarding the perceived pertinence, the most experienced surveyed teachers (36+ years) rated all three options higher than other teachers (see **Table 5.9**). The standard deviations show that 36+ years teachers seemed in more agreement than the other participants about internet delivery modes as pertinent. Although older teachers are not usually associated with frequent use of computing technologies, various reasons might underpin these results. For instance, more senior teachers might be undertaking administrative roles in schools besides teaching that require the



use of computers; thus, they might be familiar with online learning. Furthermore, qualitative data suggest that more senior interview participants were generally open to participate in CPD and learn new skills. Teachers in the range between 6 and 35 years of experience rated consistently lower their perceptions about the pertinence of blended learning and internet CPD for development, which offers an essential knowledge baseline to discuss further findings in the after-MTE Chapter.

**Table 5.9. The extent of participation and perceived pertinence for development of CPD delivery-modes according to years of experience.**

|                         | 4-5 years      | 6-15 years     | 16-25 years    | 26-35 years    | 36+ years      |
|-------------------------|----------------|----------------|----------------|----------------|----------------|
| <b>In-person</b>        | 3.00<br>(0.82) | 3.20<br>(0.79) | 3.18<br>(0.93) | 3.18<br>(0.78) | 3.29<br>(1.11) |
|                         | 47.4%<br>(9)   | 58.4%<br>(80)  | 61.2%<br>(63)  | 67.4%<br>(58)  | 54.5%<br>(12)  |
| <b>Blended learning</b> | 3.25<br>(0.96) | 2.93<br>(0.87) | 2.78<br>(1.02) | 2.88<br>(0.97) | 3.43<br>(1.13) |
|                         | 26.3%<br>(5)   | 41.6%<br>(57)  | 40.8%<br>(42)  | 48.2%<br>(42)  | 31.8%<br>(7)   |
| <b>Internet</b>         | 3.00<br>(1.15) | 2.69<br>(0.95) | 2.88<br>(1.02) | 2.78<br>(1.02) | 3.43<br>(0.53) |
|                         | 31.6%<br>(6)   | 45.3%<br>(62)  | 45.6%<br>(47)  | 54.7%<br>(47)  | 40.9%<br>(9)   |

Note: Grey colour cells indicate the highest mean response across five categories. Mean response of 4 scale answer (1: nothing; 2: little; 3: moderate; 4: much), SD in parentheses. Per cent indicates take-up within each column; (*n*) in parentheses.

### 5.3.5 A summary of participants' views about the quality of formal CPD before 2015-MTE

The following sentences in **Table 5.10** were constructed through the thematic analysis of open-ended questions in the survey and teacher interviews. These themes relate to good quality and low-quality *formal* CPD for teaching improvement (2014-2015), as perceived by these participants. Two aspects seem to contradict previous findings. For example, these participants depict low-quality CPD as one that involves reading theory, while in the *informal CPD*, they expressed this method as impactful on the practice. Furthermore, the use of online learning or CPD via the

internet appears on both sides of the table. Regarding reading theory, these findings might indicate that when teachers have control of what to read and when this CPD is considered more impactful than when reading is part of *formal CPD*. About *formal CPD* via the internet, these participants might be expressing disappointment when training via these means lacks follow-up and feedback, but not the delivery-mode itself, as more than 67% found it pertinent for development in a previous section.

**Table 5.10. Good quality and low-quality CPD from a teachers' perspective.**

| <b>Good quality CPD is...</b>  | <b>Low-quality CPD is...</b>  |
|--|---|
| Delivered by well-trained personnel, and the sessions are prepared beforehand.                             | Delivered by not well-trained personnel who also lack teaching experience; these sessions are often improvised.<br>Are retransmitted in a cascade fashion, i.e., top-down.  |
| Focused on curriculum learning, content knowledge and teaching skills.                                     | Related to rapid changes to curriculum and school programmes.   |
| Practical; it has an impact on lesson planning; is transferable to the everyday work with the students.    | Used as a means of control (bureaucratic) and demand time outside teachers' schedules.<br>Involve much reading, [what teachers call theory], but without practical application in the classroom.<br>Are not related to the needs of the teacher nor the school's needs. |
| Innovative, for example, using ICT.  | Delivered via the internet but do not provide feedback and require much effort on the part of teachers.   |
| Relevant to teachers' reflection on their professional duties. It promotes independent learning attitudes. | Delivered with old consulting materials or without all the bibliography needed. It consists of one-off, brief courses and lack feedback situated in the place where the teacher works.  |
|  | Meaningless for salary improvement for the teachers and require them to spend their time off work for these activities.   |

### **5.3.5.1 Modes of evaluation of formal CPD**

As a component of quality CPD for teacher and teaching improvement, the assessment of teacher utilisation of new knowledge is a critical gap in Mexican academic research that can help to develop targeted, meaningful training opportunities (Cordero et al., 2013; Tejedor, 2012). This research

found that the two most frequent modes of CPD evaluation in 2014-2015 are: completing the hours required was enough and written or oral examination, see **Table 5.11**.

The former way implies that an evaluation of the new skills or knowledge acquired through CPD did not occur, but attendance was enough. The other popular evaluation means embraces a summative way to determine the extent of teacher learning in CPD.

**Table 5.11. CPD evaluation modes.**

| Item   | Frequency | Per cent |
|--|-----------|----------|
| Completing the hours required was enough         | 113       | 30.8%    |
| Written or oral examination                      | 104       | 28.3%    |
| School-based research project                    | 75        | 20.4%    |
| Fellow teacher or principal decided 'pass' marks | 44        | 12.0%    |

Note: Percentages correspond to the sample  $n=367$ . Categories are not mutually exclusive, and hence the percentages do not sum up to 100%.

These findings also revealed that colleagues and school principals are rarely involved in teachers' summative assessment, such as that given to teachers upon CPD completion. Furthermore, about a fifth of the teachers experienced CPD evaluation based on a school-based research project. These latter results were expected given that such form of assessing teachers' learning after CPD is uncommon in this context. However, following the reform of 2013, the introduction of small-scale research projects as part of *individual-oriented formal* CPD will represent a challenge for implementors and teachers as suggested by these results. This issue is further reviewed in Chapters 7 and 8.

## 5.4 Key findings of this Chapter

During 2014-2015 two-thirds of surveyed teachers participated in several *formal individual-oriented* CPD opportunities. This proportion was higher in various *informal* CPD opportunities.

Quantitative evidence suggests that participants in MTE were more likely to take CPD in 2014-2015; furthermore, CPD participants in 2014-2015 were more likely to join a teacher study group. These groups were mostly organised alongside the state provision, giving rise to an open market on teacher training, in this case, about MTE procedures, which implications are worth discussing later in Chapter eight. Plausibly these teachers sought to gain more knowledge to tackle the evaluations. However, participation in CPD and study groups for the sake of gaining more learning, regardless of MTE, is also reasonable. Interview teachers with an *insufficient* result in MTE maintained that access to CPD in the traditional subjects was not available; however, quantitative findings portray teacher participation in CPD in 2014-2015 as active in various CPD-subjects.

Short term courses provided in publicly funded institutions, such as teacher centres were the most common formats and providers before 2015-MTE according to these participants. There are essential differences in the extent of participation in *formal* and *informal* CPD according to teaching experience; also, the perceived impact on the practice varies depending on the professional expertise of the participants. These findings are essential to reflect on the teachers' CPD needs according to career stages and to evaluate MTE proposed changes in this matter during the years following the first major 2015 round of teacher assessments.

Regarding CPD delivery modes, in-person CPD was the most common among surveyed teachers and the one rated the most pertinent for development above blended learning and via the internet. These findings have direct implications for decision makers in the context of the education reform of 2013, given that current documentary evidence suggests that online learning will be prioritised as the teacher development vehicle in the MTE era (Cordero et al., 2017; CREFAL, 2017; SEP, 2017d). Qualitative analysis of open-ended responses on the online questionnaire describes quality *formal* CPD before 2015-MTE as well-planned training which was delivered by knowledgeable

instructors. Such CPD was practice-oriented, utilised technology and incited teachers to continue learning. The perceived quality of *formal* CPD before 2015-MTE, which is a knowledge gap in Mexico (Cordero et al., 2013; Tejedor, 2012) was tackled. Survey participants expressed that attendance and written, and oral examinations are conventional methods to collect data on the teachers' new knowledge as a result of training. These somewhat limited approaches to the quality of CPD provision seem to be superseded by new MTE procedures where CPD quality is monitored via small research projects as part of the training given to teachers (see section 2.8.2).

## 6 MTE and the feedback report findings

*“I accepted to participate in your research because I didn't find any other way to express what I think is wrong” (Martin – headteacher, non-proficient MTE)*

### 6.1 Introduction

Before 2015-MTE, i.e. 2014-2015, most surveyed participants took *formal* CPD, both *individual-oriented*, as well as *collaborative* forms via school staff CPD meetings and other workplace-based CPD, e.g. classroom observations. Overall, these participants perceived the CPD's impact on the practice positively. Likewise, there was high participation in *informal* CPD also rated impactful on the teachers' practice. The evidence suggests that CPD available to teachers before 2015-MTE focused on content knowledge and practice-oriented training, which contrasts with the motivations that gave origin to the education reform of 2013 and MTE. For example, it was maintained that low quality of education in Mexico, as portrayed in the students' results in national and international assessments, might relate to a deficit in the teachers' knowledge and skills in such academic realms (Barber & Mourshed, 2007; OECD, 2005; Schmelkes, 2018). Therefore, further investigation into the contributions of MTE to targeted diagnose of teachers' performance and the consequential CPD directed is essential.

The responses of the  $n=131$  MTE participants and a heavy reliance on data arising from the thirteen interviewees provided data to address the strengths, weaknesses and unintended consequences of MTE in line with research question 2.

RQ2: What are the strengths, weaknesses and unintended consequences of 2015 & 2016 MTE in informing further CPD decisions and improving teacher performance?

## 6.2 Strengths of MTE

**Table 6.1** summarises the two common themes [C] and one other theme [O] related to MTE strengths. This part of the Chapter presents MTE as a framework for teacher hiring and to achieve career progressions without the mediation of the teachers' union. The formative components of the TES, such as the feedback report and CPD were also identified as strengths of MTE. Moreover, the new TES is, from a policymaker perspective, an instrument that contributes to the enhancement of teachers' status in society.

**Table 6.1. Common and other themes regarding the strengths of MTE.**

| THEME |  |
|-------|--|
| [C]   | MTE was perceived as an appropriate framework for teacher hiring and career improvement.                 |
|       | The procedures of MTE, including the feedback report, were perceived as appropriate to enhance teaching. |
| [O]   | H/P* MTE contributes to enhancing the teachers' professional status.                                     |

\*H/P – Headteacher/Policy maker

### 6.2.1 [C] – MTE was perceived as an appropriate framework for teacher hiring and career improvement

All the interviewees saw the removal of the teachers' union from teacher post assignment affairs as a strength of the new TES, including the policymaker working for the teachers' union. Helen maintained that before 2015-MTE:

*“Teachers’ posts could be bought, inherited, rented, and it was the Union, the one that managed these posts. Therefore, there was no guarantee whatsoever that either teachers or headteachers had the competencies to do the job” (Helen, policymaker).*

Furthermore, two non-tenured teachers saw MTE as a means to obtain a permanent contract via the evaluation:

*“...one of the articles of the law says that if you entered to the system before the reform, and you sit MTE, you are entitled to get a permanent contract as it proves that you can do the job” (Oscar - headteacher, proficient MTE).*

*“The main reason why I participated in MTE was to obtain a permanent contract in my second part-time shift position” (Julia - teacher, good MTE).*

The headteacher and the teacher above decided to participate in MTE voluntarily. Quantitative analyses revealed that the teachers’ results in the evaluation are not different/associated considering the type of participation in MTE in this sample, e.g. voluntary or via a draw<sup>27</sup>. Arguably, volunteers were more confident to succeed in MTE. At the same time, teachers picked via a draw might self-perceive otherwise, and potentially, be less aware of the procedures of the new TES. Yet, as seen, MTE did not favour any of the two types of participants. Thus, apart from facilitating teachers to obtain a permanent contract in the education system without the mediation of the

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<sup>27</sup> A Mann-Whitney test of difference revealed that the results of teachers in the *to retain post* group who participated in MTE *voluntarily* (Mdn = 3), and those who did *by draw* (Mdn = 3) are not different ( $U = 572$ ,  $p = .243$ ;  $n = 69$ ). Similar results were found for the *entry & promotion* group using a Chi-square test of independence. The test showed that there is little evidence of dependence between having participated in MTE *voluntarily/draw* and the results in MTE, i.e., *proficient/non-proficient*  $\chi^2(1, n = 53) = .111$ ,  $p = .739$ .



teachers' union, MTE enabled early career teachers to occupy leadership roles and gain rewards, as illustrated by a policymaker and a teacher:

*"I can tell you, teachers of twenty or fewer years of experience are being promoted; this policy is impacting on the young ones. Teachers of 8-10 years of experience are school principals now". (Alex, policymaker).*

*"I participated in MTE voluntarily. I did so to improve my salary and be able to become an evaluator afterwards" (Tanya - teacher, outstanding MTE).*

In sum, based on survey data findings and interviewees' perspectives, MTE appears as a more advantageous framework to get a permanent contract (*hiring*); to access leadership positions in the education system and to achieve salary increments (*promotion*). Arguably, through the points-based career ladder (*escalafón*) explained in section 2.4.2, which gave relevance to years of experience and credentials, or at the discretion of the teachers' union (joint committees), young teachers were less likely to obtain these posts and rewards.

### *6.2.2 [C] - The procedures of MTE, including the feedback report, were perceived as appropriate to enhance teaching*

Two teachers considered that MTE could corroborate the teachers' fit for the job via the assignments or phases of the evaluation as illustrated next:

*"[MTE] can tell a lot because teachers must do writings which reflect their knowledge and experience. If one does not know how to write it down, we do not understand what we read. So, this is an indicator of performance when the evaluation is done in adherence to the guidelines. Cheating is counterproductive" (Leon - teacher, outstanding MTE).*

*“I think MTE has good things. Doing a teaching and learning project with one or more students is a good thing. It obligates you to recall the teaching strategies and make adaptations when appropriate” (Paula - teacher, good MTE).*

Furthermore, slightly above 50% of MTE participants rated the three parts concerned with MTE phases, as moderate/large informative about their areas for improvement. See **Table 6.2**.

**Table 6.2. Feedback report sections; informativeness for detecting areas for improvement.**

|                         | [1]<br>Moderate/<br>Much | Mean | SD   |
|-------------------------|--------------------------|------|------|
| <i>n</i> =131<br>(100%) |                          |      |      |
| Lesson plan             | 55.7%<br>(73)            | 2.66 | 1.03 |
| Student portfolio       | 53.4%<br>(70)            | 2.64 | 1.03 |
| Exam                    | 51.9%<br>(68)            | 2.62 | 1.01 |

Note: Percentages in column [1] express the number of teachers who reported that the section of the feedback report was of moderate or much informativeness (*n*=131). Mean response of 4 scale answer (1: nothing; 2: little; 3: moderate; 4: much).

These findings, although on the positive side of perceptions, do not show clearly whether any of the phases in the feedback was more informative for further development. Notably, a large minority did not agree on the informativeness of the different sections of the report. This is an issue related to the standardisation of reports, which is tackled in section 6.4.2. Moreover, the lower perception of the exam as informative for further teacher development will be discussed in Chapter eight. Despite this split in perceptions, qualitative data suggest that the feedback report was perceived as useful to inform teachers and decision-makers about teaching weaknesses that could eventually contribute to the development of CPD. The three high-ranking policymakers agreed on this, as well as half of the teachers. Some examples are shown next:

*“The evaluation is useful for the teachers’ knowledge of what CPD to undertake” (Helen, policymaker).*

*“The positive, I think, is that they [MTE implementors] are looking for the opportunity areas of the teachers” (Emma - teacher, sufficient MTE).*

*“We share this information with SINADEP so that teachers can work with their schools and representatives from the teachers’ union as well as with the SEP” (David, policymaker).*

*“When the teacher is insufficient, we develop a course for them. The workshop is tailored to the phases of the evaluation and is offered in many states across the country” (Alex, policymaker).*

*“I got low grades at the content knowledge exam; therefore, I sought CPD about teaching strategies in language and maths. Also, I failed many questions regarding SEN; hence, I think I need to diversify my plan to serve this kind of students” (Leon - teacher, outstanding MTE).*

These perceptions of MTE, mainly concerning the formative side of it indicate that the TES rather than punitive was perceived as developmental by some interviewees. Indeed, four teachers and two headteachers maintained that dismissal was not an immediate concern and trusted the underpinning regulation of the TES (i.e. the law) to ensure that the teachers who obtained an *insufficient/non-proficient* category had the opportunity to correct their pitfalls accordingly, as shown next:

*“We trusted, according to the law, that due to those three chances [to obtain a sufficient mark or above] the teachers could not be sacked overnight” (Oscar - headteacher, proficient MTE).*

*“Anyways, If I failed the evaluation, they would send me to CPD or something like that” (Emma - teacher, sufficient MTE).*

Overall, these interviewees valued the developmental side of MTE, which included the issuing of a feedback report to inform CPD and the warrant that dismissal would not occur should the teachers corrected underperformance. These views depict MTE as appropriate to enhance teaching and improving by extension, education quality.

### *6.2.3 [O] – MTE contributes to enhancing the teachers’ professional status*

Only one policymaker provided data to create a theme that captured a perception of MTE as a method that helped to enhance the teachers’ status as education professionals:

*“...all professionals go through an assessment, that is part of being a professional, so I believe this is what MTE is up to” (Helen, policymaker).*

This latter perception might be related to the lack of certification processes before entering the teaching profession in Mexico, which MTE is deemed to supply via the evaluations, according to this policymaker’s perspective.

## **6.3 A summary of the identified strengths of MTE**

The identified strengths of MTE were organised into two common themes and one other theme. First, according to this analysis, MTE was perceived as an appropriate framework for teacher hiring and promotion. Notably, the removal of the teacher’s union in matters of teacher work decisions was considered adequate by all the interviewees in various ways. Also, quantitative evidence indicates that among these participants, their results in MTE did not differ based on the type of

participation in the assessments, i.e. voluntarily or via a draw, suggesting MTE did not favour some teachers over the others.

Second, for some interviewees, MTE was appropriate to tackle the teachers' performance and commended the issuing of a feedback report which orients CPD for both, teachers and decision makers. Survey data offer mixed evidence about the informativeness of the feedback report, given that slightly above 50% of the MTE participants rated it as moderate/much informative on the areas for development. Still, MTE was perceived as a TES which is concerned with the improvement of teaching via CPD. From the perspective of one policymaker, MTE has a professionalising connotation since professionals are usually subjected to assessment. Thus, arguably, MTE might be perceived as fulfilling a type of accreditation to work in the state-funded education sector. Such a licence did not exist before the education reform of 2013, as explained in section 2.2.3. In the next section, the weaknesses of the policy will be presented.

#### 6.4 Weaknesses of MTE

Teachers and authorities' views of the weaknesses of this policy converged in two common themes [C], and two other themes [O] as perceived by authorities and teachers differently; see **Table 6.3**. This part of the Chapter presents, in some cases, contrasting views to those previously expressed relating to the strengths of MTE. Among the identified weaknesses of MTE, unequal preparation of teachers and headteachers to sit the evaluations and the need for specific skills to fulfil the assessments using computers were located. The limited range of evaluation instruments in MTE and its focus on the evaluation of individual teachers were also noted as weaknesses. Data regarding the feedback report in relation to teacher CPD offer mixed evidence about its usefulness, and a poor connexion between results in MTE and further training is posited. There is also evidence concerning the role of teachers' years of experience in matters of differences in success in MTE

worth noting. Finally, issues relating to transparency in the use of economic resources for MTE and the fair allocation of teachers to vacancies according to their results in the TES were highlighted.

**Table 6.3. Common and other themes regarding the weaknesses of MTE.**

| THEME |   |
|-------|---|
| [C]   | Some aspects that MTE might have neglected due to a lack of consultation.<br>Issues related to the feedback report and its connection with CPD. |
| [O]   | H/P* The little consideration of teachers' experience in MTE.<br>Teacher Lack of transparent management of MTE's budget and posts allocation.   |

\*H/P – Headteacher/Policymaker

#### *6.4.1 [C] – Some aspects that MTE might have neglected due to a lack of consultation*

This investigation was mainly motivated by a lack of consultation among teachers and other education actors (e.g. headteachers and policymakers) about MTE as appropriate for quality education improvement. This research found that these agents, who are in contact with the new TES, were confident to provide insight into the aspects that, from their perspective, should be improved. Their suggestions concentrated in four broader topics; (i) a lack of equal preparation to sit MTE. (ii) teachers' ICT skills to fulfil the evaluation, (iii) the limitations of MTE to measure actual classroom performance, (iv) the emphasis of MTE on the individuals rather than on the schools.

In the previous Chapter, it was argued that a variety of traditional CPD-subjects were provided to the teachers before 2015-MTE. Specific courses about MTE phases were also available to some, e.g., study groups, predominantly organised by teachers, the teachers' union, and privately delivered. Nevertheless, such training varied from place to place, leading to inequality concerning the degree of preparation teachers had before 2015-MTE. A policymaker gave the following example:

*“I knew teachers to whom [after the evaluation] I explained the different phases of MTE, and at the end, they ironically expressed: if I just had known this before...” (Alex, policymaker).*

The above resonates with what a teacher experienced:

*“I looked at the online platform, and it seemed easy to do, but the way I did it was wrong” (Simon - teacher, insufficient MTE).*

A slightly different example was presented by another teacher who was trained to become an evaluator before her evaluation:

*“I knew they would evaluate me with a rubric and that I had to be very detailed in every aspect. It helped me to know that I had to be very descriptive, so I got the highest scores” (Tanya - teacher, outstanding MTE).*

These different preparations teachers received suggest that the ground was not levelled when MTE started, and hence, this was considered a weakness of the policy. Regarding the second topic, in MTE, it was assumed *de facto* that teachers could use a computer, to type texts on it and that they were familiar with the World Wide Web environment, such as the dedicated platform to upload materials for assessment. In this regard, a policymaker and a teacher posited:

*“One senior teacher told me: I know the process of the evaluation, I have no concerns about it, the problem is that I have never used a computer; thus, I told her: what are you waiting for?” (Alex, policymaker).*

*“I acknowledge my little knowledge of computers. I remember when I was writing that I couldn’t know what the number of words at the bottom of the screen meant. They were asking me to write ten thousand words!” (Rose -teacher, insufficient MTE).*

This issue, if reviewed in the light of younger teachers being more skilful in the use of computers and the Web, which are essential skills needed to present MTE, put senior teachers in disadvantage. Additionally, most experienced interviewees seem to have had more problems with the computers they were assigned the day of the evaluation.

*“Finally, I was assigned a seat and a computer. I was given a username to start the exam, but it didn't work. They gave me a second username, and it worked, but after 45 minutes” (Martin – headteacher, non-proficient MTE).*

Thus, although teachers’ mastery in the use of computers seems to be an expectation on the part of MTE implementors, qualitative evidence suggests that, among the participants, senior teachers typically had more difficulties with technology than younger teachers. This situation might have affected their performance in the assessment, potentially causing unequal opportunities to succeed in MTE. This issue is contrasted with statistical evidence in section 6.4.3.

Concerning the third topic, one policymaker and all interviewed teachers unanimously perceived that current teacher evaluation instruments are not enough to address a teacher’s performance, mainly because teachers are not visited in their classrooms as part of MTE.

*“You have to approach the teacher’s classroom practice as much as possible through indirect means, which makes it very complex. Also, you have to know whether the teacher knows what he has to teach; whether he has pedagogy and*



*didactic knowledge. Whether he knows the regulations upon him to adhere to it, etc.” (Helen, policymaker).*

Visiting all teachers in an education system of the size of Mexico would represent a challenge financially speaking:

*“It is complicated that you conduct classroom observations to a million teachers. One direct observation is not enough, you have to do at least two, and with different observers, and in various subjects; so, there is no budget to ensure that all teachers go through a process like this” (Helen, policymaker)*

Furthermore, MTE is unable to address multiple forms of evidence that teachers can present as part of the assessment because the platform had limitations about what could be uploaded. For instance, a physical education teacher considered that the nature of this subject could not be adequately addressed because his work relates to outdoor activities and non-textual-based tasks. Therefore, he would expect that this kind of learning products might be possible to upload to reflect the actual practice, and he suggests:

*“It would be beneficial if I could upload a video to show the children’s progress”  
(Simon, insufficient MTE)*

This concern about the limitations of MTE to faithfully tackle the assessment of various teachers’ practices through current evaluation instruments can be detrimental for other specialists in primary education, such as Arts, second language teachers, and so forth.

The fourth topic concerning the teachers and other stakeholders’ views on MTE aspects that might have been neglected is concerned with the emphasis placed on individual teachers rather than

schools. A headteacher and a teacher posited that due to the individualistic nature of the evaluation, schools are not being impacted:

*“I see no congruence. On the one hand, it is said that [education] is a collective thing; however, participation [in MTE] is individual. It is said that schools are communities of learning, but the only one undergoing CPD is the headteacher [or the teacher]. Then, that is not a community” (Martin - headteacher, non-proficient MTE).*

Likewise, the effects of MTE on education system outcomes are perceived as lacking consideration of the context as a factor that impacts on quality education:

*“These are very complex issues. How am I going to make the student come to school if he has problems at home? How do I do it if he comes with an empty belly? How do I make the student come if he is feeling down? These are situations that the authority cannot evaluate and neglects” (Julia, good MTE).*

For these participants, education is a multidimensional phenomenon, and one that occurs in groups of people, thus, it seems that MTE could be limited in improving other aspects of quality education as it focused on individuals, not on schools nor the broader community. During the discussion, the complementary programmes that were created together with the education reform of 2013 will be problematised with regards to this latter point raised by teachers.

#### *6.4.2 [C] – Issues related to the feedback report and its connection with CPD.*

Contrarily to one of the identified strengths of MTE regarding the feedback report, qualitative data analysis indicates that the report was general and standardised. For example, one policymaker and

most teachers and headteachers perceived that the feedback report has limitations in informing teachers about their strengths and weaknesses.

*“The feedback reports are not very different from person to person and not very accurate regarding the teachers’ performance. We have received some claims here, and we have witnessed the same recommendation for a teacher with a good result given to an insufficient or a sufficient teacher” (David, policymaker).*

*“I compared my result in MTE with the first place of the group of outstanding teachers who received the monetary incentive, and I couldn’t see a big difference between our scores” (Emma - teacher, sufficient MTE).*

Besides a potential lack of precision in communicating MTE participants their results, the previous quotes share a great concern for the teachers’ general result in the evaluation, e.g., *insufficient*, *good*, and so forth. This issue will be further discussed as part of the unintentional consequences of MTE. In exploring the informativeness of the feedback report regarding further CPD, nearly half of the surveyed teachers who received a report stated that it provided detailed information about their strengths and weaknesses, as shown in **Table 6.4**. Thus, these findings offer mixed evidence about the report as a suitable means for informing teachers about their performance. To a lesser extent, the participants agreed that the report facilitates CPD-decision making or that it is coherent with what MTE attempted to grasp of their practice. Likewise, a third of them need counselling to interpret their result, which means that most participants who received a feedback report were able to understand their MTE outcomes as presented in the report. These results do not deny that approximately half of the MTE participants found useful information in their feedback report. Also, the majority who did not seek help to interpret it may be clear about their performance in MTE and their areas for development by this report.

Table 6.4. The utility of the feedback report for CPD decision-making.

| <i>n</i> =131<br>(100%)   | [1]<br>Agree/<br>Totally<br>agree | Mean | SD   |
|---|-----------------------------------|------|------|
| My feedback provides detailed information concerning my teaching weaknesses                     | 44.3%<br>(58)                     | 3.16 | 1.31 |
| My feedback provides detailed information concerning my teaching strengths                      | 42.7%<br>(56)                     | 3.13 | 1.32 |
| My feedback facilitates decision-making about what CPD I need to improve my teaching weaknesses | 38.9%<br>(51)                     | 3.06 | 1.23 |
| My feedback report is coherent with what MTE attempts to grasp of my teaching practice          | 36.6%<br>(48)                     | 2.95 | 1.36 |
| I need counselling to interpret my results appropriately  | 26.7%<br>(35)                     | 2.70 | 1.25 |

Note: Percentages in column [1] express the number of teachers who reported agree/totally agree response to each item (*n*=131). Mean response of 5 scale answer (1: Totally disagree; 2: Disagree; 3: Neither agree nor disagree; 4: Agree; 5: Totally agree).

Two teachers whose result in MTE was *outstanding* reported that the feedback report did not provide detailed information on their strengths and weaknesses. Hence, it was perceived uncondusive to further CPD.

*“For outstanding teachers, it is not stated in a specific manner that we also ought to undertake CPD. For us, these recommendations were not clear” (Leon - teacher, outstanding MTE).*

*“This report described what areas I got the lowest grades. Because mine was an outstanding result, there were not many areas for improvement. I think something about the students’ assessment. I cannot remember it stated something to improve, but my low grades areas only” (Tanya - teacher, outstanding MTE).*

Although there were cases of disagreement with the results in the evaluations, there were no channels for revision and resolution of queries. Dissenting headteachers and teachers posit that

once the results in MTE were issued, the decision on their marks was not changed. To illustrate this, a headteacher who received his feedback incomplete explained:

*“I sent my query via mail requesting the other part of my results. A teacher friend who had a similar situation gave them a call, and she was told that the results were indisputable. I would receive the same answer” (Martin - headteacher, non-proficient MTE).*

Another teacher also expressed her frustration on this matter:

*“After the exam, there is not a revision or feedback about the answers that I was wrong” (Emma - teacher, sufficient MTE).*

Related to issues of the feedback and further CPD, the lack of follow-up on the part of the education authorities once the teachers received their feedback report was also evident. First, four interview participants who got promoted via MTE reported that they were not provided with a tutor as mandated in MTE law. Second, the teachers with *sufficient* or *proficient* results were not obligated to take further CPD. This situation might provoke that teachers do not undertake additional training at all, or that CPD options after MTE are not tackling their weaknesses as detected in the evaluation. Thus, the goals of MTE of enhancing teacher practice and quality education may have limitations if clear links between results in the assessment and CPD are not made explicit.

*“Once the feedback report was issued, the responsibility [regarding CPD] is transferred to the teacher” (David, policymaker).*

*“The SEP does not follow up; they do not tell you: you are weak on this, so, we offer you this course for your improvement. There is nothing” (Tanya - teacher, outstanding MTE).*

There is a tension between the perspectives of policymakers and teachers. While the former see MTE as guiding the development and dissemination of CPD, teachers do not appreciate follow-up is taking place. Therefore, the aim of the education reform of tackling issues of quality education via “made-to-measure” CPD (SEP, 2016e) (see section 2.8.2) seems hampered by these identified weaknesses of MTE.

#### *6.4.3 [O] – The little consideration of teachers’ experience in MTE*

All policymakers and headteachers noted that MTE phases and the policy’s consequences are equal for both young and more senior teachers, which generates the following tensions:

*“Some colleagues have 25 years of experience, and they will be evaluated under an evaluation that is not taking into account many things, like teaching experience which is essential” (Oscar - headteacher, proficient MTE).*

*“The problem is on the teaching profiles which are based on Danielson’s or the Chilean model; there is no variation according to teaching experience. A five-year experience teacher is not the same as another much more senior who could become a teacher of teachers” (Helen, policymaker).*

For these interview participants, teachers of different experience have knowledge and skills corresponding to various stages in a teacher’s career. Consequently, they should be evaluated differently. How they are different and what sort of evaluation should be assigned to each teacher

was less clearly observed among the participants in favour of such an approach to teacher assessment.

Relatedly, to investigate whether survey participants obtained different results in MTE according to years of experience, which might indicate a pitfall of the TES, a Kendall's Tau b test of association was used. Although there is a positive association between years of experience groups and the results in MTE of the teachers in the **to retain post group**, this association is not statistically significant ( $\tau_b = .078, p = .460, n=69$ ). The distributions of the teachers' results in the **entry & promotion group** are different according to a Mann-Whitney test of difference. The results indicate that *non-proficient* teachers are more experienced (Mdn = 3) than *proficient* teachers (Mdn = 2) ( $U=60.5, p = .004, n=53$ ). Furthermore, these findings resonate with a common theme previously reviewed, which suggests that the difficulties with computers were more often experienced among senior teachers. The results indicate that among these participants, younger teachers were more likely to enter the education system or gain a leadership role than their more senior counterparts.

#### 6.4.4 [O] – Lack of transparent management of MTE's budget and posts allocation

There is a perception that the monetary resources of this policy are not subject to public accountability. Also, that posts allocation after the results come up should be more transparent, for example, through the issue of public lists of teachers' results in MTE so that no one is deceived. Two teachers highlighted these related issues regarding potential opacity in the management of MTE.

*“There are lots of needs in the schools so how the resources are being spent would be a great topic to talk about too. In what things are these monies being spent?”  
(Tanya - teacher, outstanding MTE).*

*“There is no place where to consult the lists and say, ah okay, number 34 has been allocated already, and I am 85 on the list, something like that” (Julia - teacher, good MTE).*

## 6.5 A summary of the identified weaknesses of MTE

The identified weaknesses of MTE related to a lack of consultation of teachers’ and other stakeholders’ perspective revealed some of the aspects of improvement. For instance, preparation to sit the evaluations differed across Mexico; also, MTE implementors might have taken for granted that all teachers were knowledgeable of how to use a computer and further were familiar with the Internet environment. The perceived limitations of MTE to grasp the teachers’ performance in the classroom, and not indirectly was also raised. The apparent focus of MTE on individual teachers, but not on matters of schools and contexts was also included as a weakness of the new TES. Regarding the feedback and its relationship with further CPD, quantitative data indicated mixed views on its informativeness for orienting decisions on CPD. Policymakers and some teachers considered that the report intends to guide CPD decisions. Nevertheless, the feedback report was perceived as standardised, and its link with induction and in-service training was not in all cases secured.

Policymakers and headteachers raised the concern of MTE as a standardised evaluation which does not distinguish between more and less experienced teachers. However, they did not provide more insight into the perceived differences and why should teachers be evaluated differently based on years of experience. Finally, the potential misuse of resources in the implementation and advertising of the TES was also considered a weakness of MTE given the opacity shown in these matters. Similarly, more transparency concerning the allocation of teachers to schools according to results in MTE was perceived lacking. This last point will be discussed in Chapter eight with recent



data indicating the budget allocated for MTE and CPD during the period of study of this research. A series of themes concerning the non-intentional consequences of the policy follows.

## 6.6 Unintended consequences of MTE

The unintended consequences of MTE, that is, the effects of the new TES that decision makers might not have foreseen during the formulation and execution of the policy, were addressed via the analysis of qualitative interview data. There are three common themes [C] and one other theme [O] in this section, as shown in **Table 6.5**. The findings suggest that the teachers' wellbeing was affected at three moments. During the formulation and advertising of MTE, during the actual evaluations, and after the results were issued. Teacher participation in preparatory courses and study groups before MTE was arguably unintended as well, as much as the emergence of the teachers' union as a teacher training provider. Unintentionally, MTE might have prompted teachers to care more about the result in the evaluation, than the developmental components of the TES. Finally, MTE seems to maintain the inequality prevailing between more and less developed contexts, given that better results in MTE might tend to choose to work in the cities and more developed places.

**Table 6.5. Common and other themes regarding the unintended consequences of MTE.**

| THEME |   |
|-------|---|
| [C]   | Potential negative impacts on the teachers' wellbeing.                  |
|       | Teacher preparation for MTE via study groups: rationales and actors.    |
|       | The general result in MTE as the most important goal teachers followed. |
| [O]   | H/P* MTE might contribute to a type of inequality.                      |

\*H/P – Headteacher/Policymaker

### 6.6.1 [C] – Potential negative impacts on the teachers' wellbeing

Teachers' wellbeing might have been impacted at various stages of MTE; at the policy enactment stage, during the evaluation itself at the testing centres, and after the teachers' results were issued. At the policy enactment, the teachers' wellbeing might have been affected given the opposing views of the TES between the teachers' union, the dissident portions, the media, and the political discourse as presented in section 2.7.6. Likewise, the rumours about the consequences of MTE for job stability fed into the teachers' concerns as they feared to lose their positions. These issues seem related to poor communication of MTE to teachers as the following examples illustrate it.

*"Unfortunately, online social media were quicker than the official means. Not even the authorities knew about it. They did not know the phases of the evaluation. They were the ones which might have explained it, but they didn't do it" (Oscar - headteacher, proficient MTE).*

*"...all this started to get full of rumours; therefore, I decided to sit MTE voluntarily" (Emma - teacher, sufficient MTE).*

The consequences for the teachers' job were also important concerning potential negative impacts to the teachers' morale as most teachers and a policymaker posited.

*"To retain their post is a bad word. From my point of view, it would be great if policymakers removed the word from the law. In reality, teachers' rights are not being affected. It affects the teachers' status as a classroom teacher; however, one should ponder whether someone who fails MTE three times should remain in the classroom" (Helen, policymaker).*

*“I know many people that participated in MTE and were trembling with fear; my friend got stressed; hence, she got sick with colitis” (Emma - teacher, sufficient MTE).*

During the evaluation, predominantly, adverse conditions at the evaluation centres such as poor hygiene, lack of catering, the police presence, and a series of restrictions to the teachers' belongings before starting the evaluation all drained the teachers. Four teachers and a headteacher had problems at the application centres; for instance, teacher Tanya went through the following situation:

*“I had to commute to the capital city; other colleagues came from farther away. Some situations are denigrating to the teachers. They took away my bag, my glasses case, they wanted to see my hands empty. They kind of get you nude; you couldn't carry anything or communicate with no one; they took off my jacket. Moreover, I was given rotten food because they do not let you go anywhere to buy anything. For me, all those situations are unacceptable” (Tanya - teacher, outstanding MTE).*

It is well-documented that the presence of the police on the day of the evaluation was perceived as disturbing by MTE participants (see section 2.7.8). Nevertheless, in this research, qualitative data coming from headteachers and teachers suggested two sets of perceptions of these episodes between competing groups who wanted to defeat or otherwise, defend the new TES. Two participants of this research provide some examples:

*“There were more policemen than teachers. I did not feel safe but discomforted. Why the police presence in an academic event?” (Martin - headteacher, non-proficient MTE).*

*“When I came to the evaluation centre, there was a group of dissidents who would not let us in. A confrontation took place, and the police intervened. Police officers hit everyone alike; they did not distinguish who was there to sit the evaluation and who wasn’t” (Paula - teacher, good MTE).*

The confrontations arising with the deployment of police might have sent a misleading message to the participants; as if those embraced by the state forces were doing good, and the protestors, wrong. This situation polarised teachers for and against the evaluation.

Finally, some negative impacts on the teachers’ wellbeing were only visible *ex-post*. For example, some young educators promoted via MTE to leadership roles and NQT who sat the entrance exam were rejected from the schools they were allotted. In some Mexican states, MTE was not fully implemented during 2014 and 2015 because of the objection of dissident groups of teachers. Should a teacher or headteacher obtain a post in these contexts, their incorporation into schools has been troublesome as well, as recounted by a policymaker and a headteacher:

*“The state of Chiapas is a worrying case because headteachers who gained their post via MTE are not allowed to do their job at the schools. So, the state is paying their salaries for doing nothing. They are also concerned about their upcoming evaluation where their management skills will be assessed. They cannot do it because they have not been allocated a school” (Helen, policymaker).*

*“I have hosted teachers who obtained a proficient result in MTE, in particular, there is an indigenous language female teacher who was sent to a nursery, but no one wanted her at that school” (Martin - headteacher, non-proficient).*

As presented in the context Chapter, MTE facilitates early career teachers to obtain head posts; thus, it was considered a strength of the policy. However, a conflict arises when these younger

educators arrive at schools for a probationary period, and they struggle to gain acceptance among more senior colleagues. Arguably, these consequences were not foreseen when MTE was devised at the policy level as part of the reform of 2013.

### 6.6.2 [C] – Teacher preparation for MTE via study groups: rationales and actors

The emergence of teacher study groups as a response to MTE deserves mentioning. The rationales of participants of these gatherings varied, as much as the nature of the providers. For some teachers, participating in a study group enabled them to gain relevant knowledge on the procedures of the evaluations, be it to avoid punishment or to seek a promotion via MTE. For example, a headteacher and a teacher commented:

*“In my school, I have asked those who have been evaluated, myself included, to share with the rest of the teachers the procedures of the evaluation so that they get first-hand information about it” (Oscar – headteacher, proficient MTE).*

*“My school superintendent and my headteacher asked me to deliver a workshop to my colleagues so that they learn what to do in MTE” (Leon - teacher, outstanding MTE).*

The perceptions of teachers and headteachers differ in many respects from those of policymakers. While teachers and headteachers share a concern of study groups as a means for succeeding in the evaluations, policymakers see these gatherings as developmental of teachers’ skills and dispositions which have an impact on the practice.

*“When teachers take the training [in a study group] we are no longer talking about it as a simple certificate; we are talking about their professionalisation to enhance the practice” (Alex, policymaker).*

*“The study groups available to teachers [organised by the local authorities] are not meant to prepare teachers for an exam, but to tackle their areas of opportunity in a formative way” (David, policymaker).*

Notably, in matters of teacher preparation for MTE, the teachers’ union, through their foundation SINADEP-SNTE (see section 2.7.8) was prominent among the interviewees as a CPD provider for both NQT and in-service teachers. It is commendable that teachers approached various options to know more about MTE procedures. Still, the teachers’ union might have taken advantage of a loophole in the education reform to contact those seeking advice because the local authorities and the federation were less competent in providing such orientation. A policymaker explains more about this matter:

*“There is criticism around: why does the union provide CPD? However, nothing can prevent them from doing it. If the Union demands to the authority, do their job, but they respond: there is no money and takes all teachers to the evaluation. The organisation will not come to a standstill; they will train the teachers on MTE” (Alex, policymaker).*

### **6.6.3 [C] – The general result in MTE as the most important goal teachers followed**

The conflicting views about the usefulness of the feedback highlighted in the previous section may indicate that it was more evident for the teachers what their general result in MTE was, but not how this feedback might be used for guidance regarding additional CPD. This inference is plausible given the high-stakes consequences MTE entailed, which implied that the participants of the evaluation should pay attention to such component of their feedback. This clarity on what the general result in MTE was, as opposed to the formative aspects of the report is an unintended consequence of MTE, which is better illustrated by teacher Paula:

*“I have always considered myself an outstanding teacher. Getting a good result makes me think; what happened here? I demand an explanation, some advice; tell me what I have to do to improve my teaching weaknesses” (Paula - teacher, Good MTE).*

Therefore, to achieve a result in MTE that would not compromise the teachers’ stability in the job, or that granted them rewards, as seen in the previous common theme, preparation for the evaluation was highly sought. Nevertheless, this was not the only approach followed; three teachers revealed that cheating was also common as a means to get the best possible result in MTE:

*“This policy is making teachers focus on themselves rather than on improving their students. The evaluation is for me, so, instead of the students doing well, I prefer to get a good result in MTE” (Simon - teacher, insufficient MTE).*

*“There is a twofold simulation. On the one hand, some teachers are commissioning one of the MTE phases to someone else for a fee. Thus, they do not deserve the results they get. On the other hand, SPD and INEE are turning a blind eye to this situation” (Leon - teacher, outstanding MTE).*

Also related to the teachers’ interest in obtaining the best possible result in MTE, various features of Carrera Magisterial, the former teacher professional ladder, seemed more appealing to teachers than MTE. For instance, in the previous teacher evaluation programme, teaching experience and participation in CPD added points to a teacher’s final scores. Therefore, MTE was considered less a favourable policy for promotion for a headteacher and a teacher.

*“Carrera Magisterial took into account teaching experience; this component gave you some points in the evaluation” (Oscar – headteacher, proficient MTE).*

*“There are no monetary incentives like in Carrera Magisterial. In the past, teachers were more motivated about CPD. Nowadays, many teachers do not continue their masters’ degrees or specialities because of that” (Emma - teacher, sufficient MTE).*

#### 6.6.4 [O] – MTE might contribute to a type of inequality

This TES may exacerbate social differences regarding the quality of teachers assigned to different localities in Mexico. This phenomenon happens by allocating better-scored teachers in MTE to the more developed areas and sending the worse-off ones to deprived parts of the country such as rural communities:

*“For example, the evaluation to enter the service, when you offer the best places to those at the top, they choose the cities. So, why are we reproducing inequity?” (Helen, policymaker).*

### 6.7 A summary of identified unintended consequences of MTE

The unintended consequences of MTE, that is, the effects not foreseen during the development of the new TES were as follows. Arguably, the teachers’ wellbeing was negatively impacted at three different moments. First, there was a poor communication of the TES and its consequences; also, the education authority was not as effective as unofficial channels in disseminating trustworthy information about the procedures and implications of the evaluation. During the actual assessments, the police presence was disturbing for some MTE participants but was welcomed by others. Relatedly, there were instances of neglect of teachers at the testing centres; notably concerning poor hygiene and lack of access to catering during the evaluation might have affected the teachers’ morale. A couple of examples showing rejection of teachers promoted via MTE in



some States of Mexico served as an illustration of unintended consequences of MTE that emerged *ex-post*, that is, once teachers and headteachers were assigned a place due to their favourable results in MTE.

MTE enactors, e.g. the Mexican government, might not have envisaged the emergence of study groups in preparation for MTE. As seen, from a policymaker perspective, teachers were not expected to study for the test, but to develop their professional skills at the training options provided by the State. However, the teachers self-organised and joined study groups available on the market, as well as the offer coming from the teachers' union. Arguably, it was not expected that the teachers' union would take an active role in matters of teacher training, and hence, these effects were considered unintended in MTE. The evidence also indicates that MTE participants were more concerned about the general result than the formative part of the evaluations. Furthermore, some interviewees stated that cheating might have occurred to secure the best possible outcome in MTE, an issue that might not be expected on the part of MTE enactors. Similarly, it might not be anticipated that teachers rejected the idea of not being able to have their teaching experience and prior certificates of CPD considered in the general result of MTE. Thus, the new TES was perceived as less a favourable policy for promotion than the former Carrera Magisterial scheme.

Finally, teachers with a better result in MTE are entitled to choose the place of work, which can exacerbate inequalities by sending the least capable in the evaluation to more challenging contexts in need of well-prepared teachers.

## 6.8 Key findings of this Chapter

Regarding the strengths of MTE, it was found that the new TES was perceived as a better framework for teacher hiring and promotion than the former method whereby the teachers' union held significant power in such decisions. Besides this, the procedures of MTE were considered appropriate to enhance teaching, given the issuing of a feedback report to the teachers following assessments. Likewise, the research participants commended the formative side of MTE, and the opportunities grounded in the law to improve their performance in the assessments via CPD. From the perspective of a policymaker, MTE enhances the teachers' professional status via the evaluations.

This research revealed several weaknesses of MTE. The research participants mentioned the unequal preparation received to take the assessments, including equal access to knowledge of ICT to fulfil the evaluations. A perception that MTE is somewhat incomplete in the absence of classroom observations and its focus on the individual teachers, but not on the school dynamic and other context-related aspects were mentioned. Contrarily to some of the strengths of MTE and the feedback report, quantitative and qualitative data revealed mixed views of the report as informative regarding teacher strengths and weaknesses. Furthermore, a connection between the report and further CPD was not secured. There is also a perception that in MTE, the teachers' years of experience was not considered, which contrasts with a perceived strength of MTE as a better framework for the promotion of less experienced educators. Finally, the budget for MTE, and the allocation of teachers to available positions according to rankings arising from the evaluations were not transparent from the perspective of some research participants.

Concerning the unintended consequences of MTE, arguably, the teachers' wellbeing was affected at various stages; during the formulation and communication of the procedures and implications

of the new TES; at the testing centres, mainly because of instances of poor hygiene, lack of access to catering on the day of the exam, and the police presence. However, this last aspect was not perceived alike across the interviewees mentioned in the analyses. Among the effects *ex-post*, some teachers were rejected from the schools they were allocated given the opposing views of MTE in specific contexts. Unintentionally, the new TES prompted teachers to get more involved in matters concerning teacher evaluation via study groups. This situation facilitated the emergence of an array of providers besides the state-funded ones, including the teachers' union, despite the Mexican government's intention to control the educational affairs. There is evidence to argue that MTE participants paid much more attention to the general result in the evaluation than the formative indicators of the feedback report, generating some cases of cheating. Finally, MTE high performers might choose to work in the more developed regions of Mexico, leading to the perpetuation of inequalities to access good quality teachers.

## 7 CPD after MTE findings

*“The main issues in Mexico are the social and economic inequalities, apart from the injustice we endure. Unfortunately, these problems impact education, so we cannot rely on CPD only” (Oscar - headteacher, proficient MTE).*

### 7.1 Introduction

The previous Chapter tackled the strengths, weaknesses, and unintended consequences of MTE. The strengths of the new TES concentrated in the perception of MTE as a suitable method for hiring and promotion. The formative and professional enhancement components were also commended. A lack of consultation of teachers revealed a series of pitfalls of MTE such as unequal access to information about the assessments and knowledge of ICT. The absence of classroom observations and the emphasis on individuals and not schools nor context were considered weaknesses of MTE. The evidence is mixed regarding the informativeness of the feedback to link teachers with CPD. Furthermore, there is a perception of MTE as neglecting teaching experience and being opaque in the allocation of budget and teachers to schools according to their results in the evaluations. Unintentionally, the teachers' wellbeing might have been affected at various stages of MTE; however, the new TES also encouraged teachers to get to know about the evaluation, mainly through study groups. Arguably, the general result in MTE gained the attention of the participants, which might neglect the formative aspects of the feedback report. Finally, it is plausible that the best performers in MTE decide to work in the more developed areas of Mexico, maintaining, if not exacerbating current inequalities in terms of access to good quality teachers.

This Chapter presents the findings regarding the CPD teachers needed and the one they accessed following MTE, during 2016-2017, to address RQ3, RQ3a, and RQ3b. The  $n=131$  MTE participants and thirteen interviewees provided data for this Chapter. The different sections are intended to provide comparative data with CPD before 2015-MTE. The findings revealed that *individual-oriented CPD-subjects* needed after MTE are mostly those not taken in 2014-2015; the potential explanations are given. Differences, according to teaching experience, were also identified.

Additionally, NQT and teachers promoted via MTE expressed a need for CPD numerically higher than those evaluated to retain their position. Among MTE participants, participation in CPD after the evaluation was proportionally lower than before 2015-MTE. Yet, most of them were not compelled to take further CPD given their approbatory results in MTE, showing otherwise a high interest in additional CPD after the evaluation. Various rationales to participate in CPD after MTE were identified. While survey data suggest that CPD after MTE was not communicated appropriately, interview findings indicate that *formal CPD* was less readily available, and market-based providers were approached for CPD. There is criticism regarding mentors as new forms for teacher CDP, and no evidence was found among interviewees concerning the introduction of research within the school projects as part of CPD after MTE. Some examples of perceptions on the positive impact of MTE and CPD on teaching and related aspects of education quality are presented.

## 7.2 Findings regarding CPD needs and take-up in 2016-2017

This section provides insight into research question 3 and a sub-question:

RQ3: What CPD options did MTE participants need and take after the evaluation, particularly in 2016-2017?

RQ3a: Did perceptions of CPD needs after MTE vary according to teaching experience?

7.2.1 *MTE participants' self-perceived needs regarding formal individual-oriented CPD-subjects in 2016-2017*

Findings regarding CPD needs after MTE (2016-2017) show an inverted order as compared with *formal individual-oriented* CPD taken during 2014-2015, see **Table 7.1**. The CPD taken by  $n=131$  MTE participants during 2014-2015 were included in the table to make an appropriate comparison. Notably, while before 2015-MTE most teachers undertook CPD about academic content knowledge, after MTE, the option was felt to be the least needed; hence, it appears at the bottom among CPD needed after MTE. Furthermore, four of the top five possibilities before 2015-MTE appear among the bottom five ones regarding CPD-subjects needed after MTE. The exception is CPD about curriculum, with nearly half of all teachers identifying it as a training need even though 73% had received training in this area prior to MTE. These views might have been motivated by a change in the syllabus, starting from the academic year 2018-2019 (Gil, 2018a).

**Table 7.1. CPD before 2015-MTE and the one needed after MTE.**

| CPD-subjects undertook and perceived impact on teachers' practice (2014-2015) |           |          | Most needed CPD-subjects after MTE (2016-2017)       |           |          |
|---|-----------|----------|--|-----------|----------|
|   | Frequency | Per cent |  | Frequency | Per cent |
| Academic content knowledge of my school grade                                 | 96        | 73.3     | Teaching students with Special Education Needs (SEN) | 76        | 58.0     |
| Student assessment practices  | 98        | 74.8     | Characteristics of the most recent curriculum        | 63        | 48.0     |
| Pedagogy/instruction of the curriculum in primary education                   | 96        | 73.3     | Student psychological development                    | 58        | 44.2     |
| Characteristics of the previous curriculum                                    | 95        | 72.5     | School administration & management                   | 55        | 41.9     |
| ICT skills for teaching and learning  | 95        | 72.5     | Teaching in multicultural settings                   | 51        | 38.9     |
| School administration & management  | 92        | 70.2     | Student discipline and behaviour problems            | 48        | 36.6     |

|  |    |      |   |    |      |
|--|----|------|---|----|------|
| Student discipline and behaviour problems            | 90 | 68.7 | Student assessment practices                                | 47 | 35.8 |
| Teaching students with Special Education Needs (SEN) | 88 | 67.2 | Pedagogy/instruction of the curriculum in primary education | 39 | 29.7 |
| Student counselling (e.g future studies/career)      | 88 | 67.2 | ICT skills for teaching and learning                        | 36 | 27.4 |
| Student psychological development                    | 87 | 66.4 | Student counselling (e.g future studies/career)             | 35 | 26.7 |
| Teaching in multicultural settings                   | 77 | 58.8 | Academic content knowledge of my school grade               | 18 | 13.7 |

Note: Percentages of sample  $n=131$ .

The described upside-down pattern in the CPD options the participants took, and the ones they needed most after the assessment incite various reflections. Plausibly, the undertaken CPD before 2015-MTE was not required in 2016-2017 because most of the teachers who participated rated those options as impactful on their practice (see section 5.3.1). On a different line, it could be possible that before 2015-MTE, a limited range of CPD alternatives was on offer; therefore, the teachers' perceived needs in 2016-2017 may refer to CPD less available in 2014-2015. Furthermore, except for characteristics of the most recent curriculum, the nature of the top five CPD-subjects teachers needed in 2016-2017 is different from the most common CPD-subjects before 2015-MTE. Teachers might be saying that training about student development, different from academic content, is required. A review of these perceived needs according to the teachers' experience provides further insight into this matter.

#### ***7.2.1.1 Formal individual-oriented CPD-subjects needs after MTE according to teaching experience***

The MTE participants' sample size is small to reach robust conclusions about the CPD-subjects most needed according to teaching experience. This is particularly true regarding the least experienced and the most experienced teachers' groups. Still, the findings shown in **Table 7.2** indicate that

teaching students with SEN continues as a top priority among the most senior teachers (36+ years), given that this CPD was perceived impactful in 2014-2015, and was recognised as needed in 2016-2017. These perceptions were followed by the least experienced teachers, potentially indicating a learning curve on the matter. That is, while teaching SEN student is a weak area identified among teachers within their first five years of teaching, this might be a knowledge that is progressively acquired, but that may require strengthening towards the end of a teacher's career.

Notably, for the least experienced teachers, being updated on the curriculum was perceived as impactful in 2014-2015, and needed in 2016-2017, which suggests that this professional development area needs support during the initial years of teaching. Another notable pattern in the data relates to CPD about student discipline and behavioural problems, given that like the previous case, the least experienced teachers found this training impactful in 2014-2015 but continue to be a need in 2016-2017. Thus, these findings shed some light into the areas that CPD after MTE could prioritise according to the teachers' experience.

**Table 7.2 Formal individual-oriented CPD-subjects needed in 2016-2017 according to teaching experience.**

|   | <b>4-5<br/>years</b> | <b>6-15<br/>years</b> | <b>16-25<br/>years</b> | <b>26-35<br/>years</b> | <b>36+<br/>years</b> |
|---|----------------------|-----------------------|------------------------|------------------------|----------------------|
| <b>Teaching students with Special Education Needs (SEN)</b> | 66.7%<br>(6)         | 60.3%<br>(35)         | 53.8%<br>(21)          | 52.4%<br>(11)          | 75.0%<br>(3)         |
| <b>Characteristics of the most recent curriculum</b>        | 55.6%<br>(5)         | 53.4%<br>(31)         | 48.7%<br>(19)          | 28.6%<br>(6)           | 50.0%<br>(2)         |
| <b>Student psychological development</b>                    | 44.4%<br>(4)         | 48.3%<br>(28)         | 35.9%<br>(14)          | 47.6%<br>(10)          | 50.0%<br>(2)         |
| <b>School administration &amp; management</b>               | 33.3%<br>(3)         | 39.7%<br>(23)         | 43.6%<br>(17)          | 47.6%<br>(10)          | 50.0%<br>(2)         |



|   |              |               |               |              |              |
|---|--------------|---------------|---------------|--------------|--------------|
| Teaching in multicultural settings                          | 44.4%<br>(4) | 39.7%<br>(23) | 41.0%<br>(16) | 33.3%<br>(7) | 25.0%<br>(1) |
| Student discipline and behaviour problems                   | 55.6%<br>(5) | 39.7%<br>(23) | 30.8%<br>(12) | 28.6%<br>(6) | 50.0%<br>(2) |
| Student assessment practices                                | 33.3%<br>(3) | 36.2%<br>(21) | 30.8%<br>(12) | 42.9%<br>(9) | 50.0%<br>(2) |
| Pedagogy/instruction of the curriculum in primary education | 22.2%<br>(2) | 31.0%<br>(18) | 33.3%<br>(13) | 23.8%<br>(5) | 25.0%<br>(1) |
| ICT skills for teaching and learning                        | 0.0%<br>(0)  | 29.3%<br>(17) | 25.6%<br>(10) | 38.1%<br>(8) | 25.0%<br>(1) |
| Student counselling (e.g future studies/career)             | 33.3%<br>(3) | 27.6%<br>(16) | 23.1%<br>(9)  | 23.8%<br>(5) | 50.0%<br>(2) |
| Academic content knowledge of my school grade               | 11.1%<br>(1) | 19.0%<br>(11) | 10.3%<br>(4)  | 9.5%<br>(2)  | 0.0%<br>(0)  |

Note: Percentages correspond to the proportion of teachers stating a need for the CPD option within each teaching experience range, frequency in parentheses.

### 7.2.1.2 Results in MTE and perceptions about the number of CPD-subjects needed after the evaluation

The association between the MTE results of teachers in the **to retain post group** and the number of CPD-subjects required after the assessment is very weak and not statistically significant ( $t_b = -.021, p = .834, n=69$ ). Contrarily, teachers in the **entry & promotion group** with a *proficient* result expressed needing more CPD courses (Mdn = 4) than *non-proficient* educators (Mdn = 2); a Mann-Whitney test of difference revealed that the difference is statistically significant ( $U = 263, p = .005, n=53$ ). These findings might indicate that *proficient* teachers self-perceive as underprepared for their upcoming duties or otherwise are more likely to value further CPD to enhance their skills. On a different line, MTE for **entry & promotion** might not be sensitive enough as to identify the teachers that are fully prepared for the future duties, e.g., teaching in the classroom, leading a school, or conducting inspectorate tasks. This is plausible if considering that NQT and those seeking

a promotion were not assessed on such skills, but via written exams about general content knowledge and professional and ethical responsibilities (see section 2.7.2). One teacher illustrated this last point further:

*“I do not feel prepared for the next evaluation; I have to start all over again; and also, I will have to get to know the new school I will be sent and get ready for it”*  
(Emma – teacher, sufficient MTE).

These results present useful insight into potential aspects that induction programmes and the assessment procedures for NQT and leadership roles in education could consider. In sum, exploration of the teachers’ needs regarding CPD after MTE not surprisingly revealed a series of CPD-subjects that typically they were less likely to have been trained in during 2014-2015. Some areas of CPD as self-perceived need by the least and most experienced teachers were identified. Furthermore, it was found that promoted teachers via MTE, such as those who will lead schools self-perceive more CPD needs than their counterparts who were not promoted. In that sense, this exploratory research presents original evidence that may support decision makers on CPD areas and groups of teachers most in need of further training.

### *7.2.2 The extent of participation in formal CPD after MTE*

Teachers evaluated in MTE reported considerable CPD needs after their evaluation; however, only half (51%) undertook *formal* CPD (besides mandatory staff CPD meetings) during the academic year 2016-2017. Compared to the proportion of participation in CPD in 2014-2015 among MTE participants (77%), this number is lower. Nevertheless, only nine out of one hundred and thirty-one MTE participants obtained either an *insufficient* or *non-proficient* result in MTE, which makes participation mandatory for them (see section 4.6.3.1); also, refer to **Table 2.5** for national statistics regarding teachers’ results in MTE. These findings suggest a high interest in CPD and potentially

that some individuals are regular participants in CPD. To explore such possibility, and its potential rationales, teacher participation in CPD before and after MTE was investigated as shown in the following section.

### ***7.2.2.1 Relationship between participation in CPD before and after MTE, during 2014-2015 and 2016-2017***

It was found that MTE participants who took CPD during 2014-2015 were more likely to undertake CPD during 2016-2017 (85%) than equivalent teachers who did not participate in CPD during 2014-2015 (69%) using a Chi-squared test of independence  $\chi^2 (1, n=131) = 4.94, p = .037$ . The results may indicate two things; (i) some of these teachers are more prone to undertake training often, independently of the circumstances; (ii) MTE as a central event separating these two observations incited prolonged engagement with CPD. In the second case, given that teachers must sit MTE every four years, being prepared via CPD seems a plausible rationale underpinning sustained participation in training during the years explored.

### ***7.2.2.2 [C] – Rationales underpinning teachers' and headteachers' decisions regarding participation in formal CPD after MTE***

This common theme gathers the most salient rationales for taking CPD after MTE. Insight from all interviewees suggested the following four motivations. (1) to enhance their professional practice; (2) to overcome subsequent evaluations and avoid dismissal; (3) to address teaching weaknesses as stated in their feedback report; (4) to tackle self-perceived professional development needs. Regarding the first rationale, with no exception, all thirteen interviewees agreed on further training as a necessary condition to improve teacher performance and the education system. The following examples illustrate this:

*“I am doing this because I want to get up to date and I feel good about it. Likewise, should undertaking CPD allow me to do my job better, and impact on the students’ learning, I am happy with it” (Martin - headteacher, non-proficient MTE).*

*“If we do not participate in CPD and keep up to date, it is going to be difficult to improve the education system” (Leon - teacher, outstanding MTE).*

About the second reason to take CPD after MTE, four teachers and a headteacher showed interest in CPD to “pass” subsequent assessments; nevertheless, this attitude was particularly evident among those in their second opportunity to pass the evaluation for whom CPD was mandatory to take.

*“I sought for training to pass the evaluation because that is all that matters” (Simon - teacher, Insufficient MTE).*

*“I undertook CPD because of the clauses of this law. If you do not participate in MTE, then you are dismissed. If you do not take courses, likewise. I said, why do I challenge them?” (Martin - headteacher, Non-proficient MTE)*

As shown, CPD after MTE was also necessary for some teachers to avoid dismissal, given the high-stakes consequences for those not showing up to further mandatory training following an *insufficient* or a *non-proficient* result in MTE (see section 2.7.4).

Concerning the third rationale, two teachers found the feedback report informative of their CPD needs, and hence, they sought further development on those areas. Nevertheless, although the feedback might have alluded what CPD was appropriate for the teachers, teacher Leon, for

instance, did not find any related *formal CPD* on offer. Thus, he addressed some of his weaknesses in MTE via a public-private-partnership CPD provider:

*“My needs about language and maths did not match the CPD catalogue from the state. Hence, I took another course [state-funded] on Natural Sciences, which I feel like, it wasn’t very helpful. After this, by invitation, I participated in another course [on ICT] with a prestigious and reputable private institution; I am delighted with their programme” (Leon - teacher, outstanding MTE)*

Similarly, teacher Emma who took her performance in the exam as a reference for CPD expressed her frustrations regarding the absence of related training:

*“I couldn’t find anything related to management and school superintendent ‘s responsibilities. Instead, I am undertaking one course about annual plan design” (Julia -teacher, good MTE).*

Concerning the fourth rationale, four teachers decided to address a different set of development areas. For instance, teacher Leon tackled an issue he had identified among his students via self-selected CPD:

*“The course I took about specific strategies such as those aimed at relaxing and motivating the students has been useful” (Leon - teacher, Outstanding MTE)*

Notably, this example refers to CPD available on the market, as it was not available from the state provision.

In sum, participation in CPD after MTE may have responded to the following rationales. In essence, some teachers may be regular users of training regardless of the circumstances, e.g. the introduction of a TES. Also, some of them took CPD about MTE procedures aiming to pass subsequent assessments. Furthermore, some teachers might have undergone training related to their areas for improvement as reported in their feedback while others focused on self-perceived CPD needs. One commonality among those teachers who sought *formal* CPD is that, where available, the options on offer were not typically in line with the teachers' reported weaknesses in MTE nor other areas as self-perceived by these participants.

### *7.2.3 Formal CPD formats and subjects after MTE*

Interview headteachers and teachers enumerated a series of workshops, master's degrees, specialities, and diploma courses they took after participation in MTE (see **Table 7.3**). The table allows mapping where the offer and the interests of these participants concentrated. As shown, while headteachers focused on CPD about school management, teachers underwent further development in areas dominantly related to teaching and learning with technology. There are a few examples of traditional content knowledge CPD such as language, maths, sciences and assessment; and fewer instances concerning students' development and inclusive education. The participants stressed that the state also funded courses about preparation for MTE phases in 2016-2017, such as how to prepare a lesson plan, and other courses on the development of certified evaluators for the teachers' assessments.

**Table 7.3. CPD-subjects that interviewee headteachers and teachers undertook after MTE.**

| Headteachers  | Teachers   |
|---|--|
| Diploma in school management.<br>Diploma in school management with an emphasis on student learning. | Workshop in Robotics and computer coding (LANIA).<br>Master's degree in school management (SINADEP-IESPE).<br>Workshop in school annual plan design.<br>Workshop in natural sciences education.<br>Diploma in reading and maths with technology.<br>Workshops in human development behaviour management (various private providers).<br>Workshop in teaching and learning with technology (Apple Inc).<br>Workshop in MTE assessment for future evaluators.<br>Workshop in tutorship under MTE guidelines.<br>Speciality in inclusive education. |

Note: Institutions in brackets denote CPD provision via a private or public-private partnership.

The findings indicate that MTE participants undertook CPD via a handful of options they found locally. Some of which were provided via public-private agreements. In that sense, the courses presented in **Table 7.3** correspond to those undertaken by some of the interviewees, but not necessarily the ones they needed according to the feedback report. In some cases, the teachers paid partially for the course to a variety of providers. The issue is further discussed in section 7.2.5. One significant change MTE would entail in terms of workplace teacher CPD was the introduction of mentoring schemes, as well as research within the school via small-scale research projects as part of *individual-oriented CPD*. Both are revised below.

#### *7.2.4 Perspectives on the introduction of new formal CPD relevant to the workplace*

With MTE, new teacher CPD formats, such as the renewed *school staff CPD meetings*, teacher mentoring schemes, and research within the school were introduced. Despite in 2014-2015 survey data presented school staff CPD meetings as common, and impactful on the teachers' practice, qualitative insight depicted them as still needing development to become meaningful to the teachers' practice. After MTE, in 2016-2017, the views of these gatherings coming from qualitative data were not different. Furthermore, four teachers noted that although it was expected that

policy reform guidelines were tackled during monthly school staff CPD meetings, MTE regulations and the related legal aspects of the new TES were given to the teachers to review at another space.

*“Many legal documents that I saw were advised to review in the monthly meetings were like, not here, take it, read it at home” (Emma - teacher, sufficient MTE).*

As shown in section 2.8.1, these meetings were intended to make teachers and headteachers plan a school improvement strategy throughout the academic year; nevertheless, these spaces were also legally entitled to discuss education policy matters, which for some teachers was a frustrated expectation. Regarding mentoring, this new *formal* CPD directly addressed in the workplace was introduced to help NQT and teachers who underperformed in MTE to improve their practice. Policymakers and headteachers welcome these development mediums because their function is entirely formative and aimed at helping teachers to improve their weaknesses, *“not to pass an exam” (David, policymaker)*. Likewise, all interviewee headteachers and policymakers gave face-value to the certified mentors because they must pass rigorous training and summative evaluation. Still, despite the positive aspects that these authorities underlined, they also found that the implementation of mentoring is complicated, as illustrated in the following common theme.

#### **7.2.4.1 [C] – Introducing tutors has not been as successful as expected**

A policymaker, a headteacher and three teachers noted these difficulties. For instance, David mentioned a shortage of individuals interested in taking one of these posts.

*“Applications to become a teacher tutor are scarce. We have been using retired teachers instead” (David, policymaker).*



Similarly, budget cuts and an excessive workload, all might have impacted on the actual contribution of tutors to the teachers.

*“Tutorship is voluntary, but unfortunately, the teachers are being exhausted with lots of activities. For quality advising, you have to have no more than ten mentees. Also, it is complicated to harmonise your duties as a teacher and as an advisor”*  
(Oscar - headteacher, proficient MTE)

Simon and Rose, who required advice urgently due to their result in MTE, encountered some difficulties. For example, Simon could not attend weekly meetings with a tutor because these gatherings were delivered on Saturday morning, which is a working day for him. This example illustrates that mentors might not balance their teaching duties with mentoring responsibilities, and hence, in that case, guidance was offered over the weekend. Rose was appointed a tutor once she was in her third and last chance to sit the evaluation<sup>28</sup>. Another teacher witnessed this situation:

*“In my school, insufficient category teachers have not received training; they were left alone. No follow-up to help them improve their results was provided”* (Leon - teacher, outstanding MTE)

Although CPD providers were asked to integrate some assessment following the provision of training to teachers, mainly, via a school-based research project, there is no substantial data to confirm or discredit the integration of research within the school projects as part of CPD after MTE.

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<sup>28</sup> In informal separate communications one year after interview, Simon and Rose shared with the researcher their successful participation in MTE, hence, they were able to retain their teaching positions. Both commended the support mentors represented for such an outcome.

Four teachers stated being in the process of concluding CPD and stressed that assessment would be like that most experienced pre-MTE, via written or oral tests.

### 7.2.5 CPD providers after MTE

As indicated by interviewees' experiences with CPD in 2016-2017, in brackets in **Table 7.3**, a series of private and public-private providers appeared as active CPD suppliers for teachers working in the state-funded sector. It does not necessarily imply that these entities were not in place before 2015-MTE. However, these options seem more prevalent since the enactment of MTE, as noted in the literature (Cordero et al., 2017). Although the state continues to provide and manage CPD, two players: the private sector and the teachers' union (SINADEP) have been active CPD advocates pre and post MTE. The following two themes provide further insight into these issues.

#### 7.2.5.1 [C] – Contesting perspectives concerning market-based CPD quality

There is a dispute between perceptions of CPD quality coming from the private sector. For example, SINADEP offered masters' degrees taught by for-profit private providers at a discounted price to teachers. An interviewee took one of these programmes and commented:

*“The tutors and people who teach these courses are experts. They know about the subject and master the topics they teach” (Julia - teacher, good MTE)*

Contrarily, another interviewee perceived that the market has opened to everyone willing to become a CPD provider, particularly about MTE phases. Nevertheless, from his viewpoint, not all people can do this task:

*“Some institutions are providing training to teachers for profit; however, the problem is that the person in charge of delivering the course has not gone through assessment yet. You need to experience MTE to be able to explain it to others” (Oscar - headteacher, proficient MTE)*

#### **7.2.5.2 [O] – Potential conflict of interest concerning teacher advising for MTE**

Some interviewees accused SEP personnel setting up businesses aimed at tutoring teachers on the phases of the evaluation. For example, teacher Simon who met a SEP advisor witnessed personnel from the SEP consulting MTE participants with *insufficient* results in the assessment for a fee:

*“We were five from my locality taking advice with this person, but later, other guys would arrive, but they were more of private business, so they gather at a different place” (Simon -teacher, Insufficient MTE).*

Simon was not charged for the consultancy; nevertheless, these bureaucrats might be part of a potential conflict of interests, given that they should not charge for the privileged information they hold regarding the procedures of MTE. Similarly, teacher Tanya who was trained as an evaluator in MTE narrated what might be considered fraudulent behaviour by some of her colleagues. The context to the following quote relates to one of the assignments of MTE where the teachers must upload a student portfolio and justify their decisions, including how they evaluated those students.

*“I know colleague evaluators who deliver these courses [for a fee]. They do the projects and upload them [on behalf of the teacher]” (Tanya - teacher, Outstanding MTE).*

In sum, interview data suggest that CPD provision after MTE has diversified. Although the state continued to manage and deliver teacher training, various entities from the private and the public-

private sectors have gained currency. The teachers' union has fulfilled the role of advocator for specific programmes and institutions, although maintaining its non-for-profit stance. Furthermore, there is a potential conflict of interest which involves personnel who received training to support MTE participants and make a profit by counselling teachers privately. Among the CPD opportunities experienced by interviewees, online provision has become prevalent. This situation suggests that a contracting-out-model for teacher CPD in the state-funded sector was chosen during the post-reform 2013 era, which might be detrimental to the continuance of traditional state-run institutions. This issue is further discussed in the following Chapter.

#### *7.2.6 Reasons not to participate in formal CPD after MTE*

Survey data from 49% ( $n=64$ ) of the MTE participants who did not take *formal* CPD after the evaluation revealed the following. As shown in **Table 7.4**, not being aware of where to find the CPD options and CPD clashed with their work schedule were the two main deterrents. These results may indicate that advertising CPD is not being effective, especially if it is done through the internet only. Also, better planning of in-service training should observe that teachers have different timetables, and some of them may also work on Saturdays as teacher Simon briefly commented during the interview. At the other extreme are duties at home or having obtained a sufficient or above result in MTE, which were the least mentioned rationales for not having participated in CPD after the evaluation. Such a low percentage of participants choosing either of the options suggests that the interest in participating in training after MTE is present among these teachers. Thus, the teachers' motivation to undertake CPD could be capitalised on by providing CPD that considers the potential deterrents expressed by these participants. Another theme perceived by teachers expands the motives that deterred teacher participation in CPD after the evaluation.

Table 7.4. Reasons not to participate in CPD after MTE.

| Item   | Frequency | Per cent     |
|--|-----------|--------------|
| I was unaware of where to find these CPD options             | 19        | 14.5%        |
| CPD clashes with my work schedule                            | 16        | 12.2%        |
| CPD options on offer are not interesting                     | 10        | 7.6%         |
| No one has asked me to undertake CPD                         | 7         | 5.3%         |
| CPD available is not well aligned with my needs              | 6         | 4.6%         |
| Duties at home complicate it                                 | 3         | 2.3%         |
| My result is sufficient or above; hence, it is not mandatory | 3         | 2.3%         |
| <b>TOTAL</b>   | <b>64</b> | <b>49.0%</b> |

Note: Percentages correspond to the subsample  $n=131$ .

### 7.2.6.1 [O] – CPD after MTE does not lead to salary improvement

Two teachers decided not to join CPD after MTE because of the absence of economic enticements linked to participation in development, as shown in the following quotes.

*“It requires extra time that is neither paid nor thanked by anyone. Most of it is workload to bring home, and it is a labour that is not recognised or remunerated” (Tanya - teacher, Outstanding MTE).*

*“There are no economic incentives, like in Carrera Magisterial. I feel like teachers were more motivated before this policy. Many teachers prefer not to do a masters’ degree or a speciality because of that” (Emma - teacher, sufficient MTE).*

### 7.2.7 Participation in informal CPD after MTE

The following other theme suggests that two *informal* means for professional development were prominent among some interviewee teachers.

#### 7.2.7.1 [O] – Two approaches to informal CPD after MTE

In the view of three teachers, participation in *informal* CPD followed these purposes: 1) as a form of preparation for future evaluations via the reading of relevant bibliography; 2) as self-learning

about teaching strategies using the internet. Regarding the first point, teachers Emma considered that dedicating time to learn about the legal guidelines and other documentation related to MTE is one way to be ready for the next assessments. Teacher Victor raised the second point. Although CPD was not offered for him, he started to surf the web seeking what he considers innovative practices that would benefit his students.

*“To be ready for the next evaluations, I consulted MTE bibliography. I downloaded and printed all of it and study about it at my pace” (Emma - teacher, sufficient MTE).*

*“What I do while I wait for CPD, I surf the web and prepare activities for my students. The internet helps me to improve my teaching” (Victor - teacher, sufficient MTE).*

There were no qualitative accounts of teacher groups or collaborative forms of *informal* CPD after MTE in the data available. Still, survey data showed that 43% ( $n=30$ ) of MTE participants who joined a study group in preparation for the evaluation continued engaged with it. These findings demonstrate a continuation of teachers' preferences regarding *informal CPD*, mainly using the internet to keep updated. Among these participants, a potential concern about future evaluations, and hence, addressing it via *informal* continuous preparation was noticeable. The following section presents further comparisons between teachers' experiences with CPD before and after MTE.

### 7.3 The perceived impact, pertinence, and quality of CPD before and after MTE

The following findings respond to the second sub-question of research question 3:

RQ3b: How does CPD in 2016-2017 compare to CPD before 2015-MTE regarding impact, pertinence, and quality?

### 7.3.1 *Perceived effects of CPD after MTE*

Teachers' perceptions regarding the impact of CPD after the evaluation were collected via interviews because it was not considered appropriate to take more time from MTE survey participants to talk about their views on these issues (see methodological limitations in section 4.13.2). Furthermore, because the myriad of CPD options teachers might have joined after MTE was uncertain, and hence, collecting such information was considered less sensible for aggregate data analyses purposes. Although there are no policy guidelines or documented evidence of the impact of MTE and CPD on teachers or students' outcomes, the views of policymakers and teachers were contrasted in the following theme:

#### 7.3.1.1 *[C] – Two views of the positive impact of CPD following MTE*

Two policymakers and four teachers provided some examples of the positive effects of MTE and corresponding CPD on teachers and students. A policymaker who was interviewed argued, in the context of NQT assigned to a mentoring programme:

*“The clearest example is the parents who tell me: ‘send me proficient teachers, those who were evaluated; I do not want the others because they do not pay attention to my children’” (Helen, policymaker)*

Teachers saw a positive impact on their students following participation in CPD:

*“I have seen a positive impact [of CPD] on my students' academic performance. Also, their sense of responsibility has improved. They assume their role as students and do not blame their parents for not helping them with their homework anymore. They have become independent learners” (Paula - teacher, good MTE).*

Although limited, these accounts support a view of MTE as enhancing certain aspects of the education system. Interestingly, when teachers regarded the positive impact of CPD in their practice, the options were those related to non-academic content, and teacher training available from market-based providers.

### *7.3.2 The pertinence of formal CPD delivery modes during 2016-2017*

With the introduction of MTE, it was expected that CPD tackled teacher development needs as “made-to-measure” (SEP, 2016e), which includes the delivery modes most appropriate to the teachers. The national catalogue issued in late 2017 shows that there was an interest in starting the migration of the CPD given to teachers onto online platforms, most of them in collaboration with public-private providers from all over Mexico (see section 2.8.2). Qualitative data suggest that CPD delivery modes after MTE were predominantly blended learning and online learning formats. Although in Chapter five, online learning was depicted as a feasible CPD method, the following teachers present contrasting views on the viability of this delivery mode after MTE.

#### **7.3.2.1 [O] – Online learning is gaining users, but scepticism continues**

Five interviewee teachers maintained that online learning was appropriate when traditional in-person CPD was not feasible for them to take part due to distance or lack of time. The following quotes provide some examples.

*“Although the Internet is not that good in my community, for me, it is more difficult to commute to an urban area or visit a teacher centre. Thus, online learning accommodates me best” (Tanya – teacher, outstanding MTE)*

*“I have four months to conclude the modules of the course. For me, this is convenient because I dedicate time to it when I can” (Julia - teacher, good MTE)*



Conversely, CPD through the Web might not be convincing enough to take it, nor the best option to impact teaching.

*“[After MTE] it would be important that teachers get motivated by telling them the pros of being updated. But rather than providing online courses [in a sceptical tone], professional support should be given to them” (Emma - teacher, sufficient MTE).*

Following MTE, teacher CPD delivered via the internet became more frequent. There are rationales in pro and against the use of the online provision, which show that although CPD via the internet has advantages, it might need support to start a transition away from the more traditional face-to-face training.

### *7.3.3 MTE participants' perceptions on the quality of CPD after MTE*

Throughout this findings Chapter, survey data, as well as interview information, have shed light into the perceptions of MTE participants about the quality of CPD after the evaluation. For example, some teachers have found value in CPD that is provided besides traditional state-run institutions, such as the example given by teacher Julia in section 7.2.5.1 about her masters' degree programme. Also, after MTE, the teachers seem to have bought in the idea of looking for self-development, leading them to select and pay for further training. One promising difference regarding the evaluation of participation in CPD advanced by MTE was the integration of small-scale research projects so that teachers were able to apply new knowledge and skills to their teaching. Although CPD providers were asked to follow this intention, this might not have happened. In this research, there is no substantial data to confirm the integration of research within the school projects as part of CPD after MTE; however, there is no evidence to assert it did not happen.

## 7.4 Key findings of this Chapter

It was found that the teachers' CPD needs after the evaluation are arguably those that MTE participants did not tackle before 2015-MTE. Nevertheless, the most common *formal* CPD-subjects in 2014-2015 might have been useful; therefore, those do not appear among the most needed after MTE in 2016-2017. Lack of availability of training in areas self-perceived needed after MTE is also plausible. Within the limitations of sample size, it was found that teaching SEN students is an area of high interest among (36+ years) teachers, followed by the least experienced group. CPD regarding curriculum knowledge and student discipline was predominantly perceived as needed by the least experienced teachers. Moreover, it was noted that, in general, surveyed MTE participants self-perceived as in need of numerous CPD options, and this was prominent among NQT and promoted educators via MTE. These latter teachers might feel underprepared for their future duties or be aware of the value of CPD for those upcoming tasks. Nevertheless, MTE might not be enough to identify fully prepared for the job NQT and those promoted to leadership roles.

Half of the MTE participants in this sample took CPD after MTE, although only nine of them received an *insufficient* or a *non-proficient* result in the evaluation. Similarly, statistical findings showed teacher participation in CPD before and after MTE as significantly associated. These findings, together with interview data analyses, show teachers as highly concerned about further development to improve their practice, be prepared for future assessments, and to address CPD needs both as informed via feedback report as well as self-perceived. Qualitative findings suggest that *formal* online learning was prominent after MTE. Still, there are issues of access to the internet and knowledge on the use of ICT that might hamper the widespread use of the internet for teacher CPD among these participants.

The interviewees took CPD in different formats and with various providers. Notably, possibly because of the limited availability of *formal* CPD in 2016-2017, the interview participants gave examples of further training that they paid partially or in full. As a common characteristic, those who sought CPD in their areas for improvement, according to the feedback report, as well as those self-prescribing CPD found it challenging to locate *formal* CPD and were critical of the participation of market-based providers. Regarding the introduction of mentoring as CPD, there is a perception of this form of teacher development as not yet fully established. The introduction of research within the school projects as part of the assessments of CPD was not current among these interviewees' experiences.

Teachers who did not participate in CPD after MTE suggested that the options might not be communicated efficiently to teachers. However, there are instances of clashes with the teachers' schedules that prevent them from taking part in further training. Likewise, for two teachers, the absence of incentives to undertake CPD was demotivating. It was also found that teachers took CPD *informally* in preparation for subsequent evaluations, and to supplement their teaching strategies, in this case, because of a lack of *formal individual-oriented* CPD. The positive impact regarding MTE and related CPD was seen in pupils' parents being happy to be allocated NQT who underwent an induction, and on the students' behaviour as a result of teacher training. CPD in 2016-2017, from the view of research interviewees, still lacks appropriate guidance to help teachers to structure a professional development pathway. The absence of follow-up and data collection of application of new knowledge and skills following CPD were noticeable among the experiences of the interviewees referred to in this findings Chapter.

## 8 Discussion

### 8.1 Introduction

The purpose of this Chapter is to discuss the research findings, literature, and the context Chapters in order to address the three research questions and sub-questions which emanate from the aim of this research:

**Aim:** To investigate Mexican teachers', headteachers', and policymakers' perceptions of the strengths, weaknesses, and unintended consequences of MTE. Also, to compare CPD before and after MTE and examine whether the teacher evaluation and feedback report can inform subsequent CPD routes to enhance teachers' knowledge and pedagogical skills for quality education improvement.

In this discussion, it is argued that before 2015-MTE, i.e. 2014-2015, CPD was common among the surveyed participants and was perceived as impactful on the practice. Therefore, it is suggested that before MTE, *formal individual-oriented* CPD targeted towards areas typically concerned with students' academic outputs were already in place, and potentially contributing to quality education in Mexico. Moreover, this evidence might indicate that MTE was introduced without a teacher development component prior to the assessments. It is also argued that despite the higher prevalence of in-person CPD in 2014-2015, online learning is a viable method for teacher CPD as long as decision makers take into account the training which teachers received on the use of computers and the internet during their ITE and once while in-service.

Before 2015-MTE, there was a high proportion of teachers experiencing *formal* workplace CPD, which was also considered impactful on the practice. In this regard, the lack of a classroom observation component as part of MTE resonates with located weaknesses of the TES. This research argues that MTE might have influenced the teachers' rationales to join *formal* and *informal* CPD in the wake of the new TES. Nevertheless, unlike previous research, it is maintained that surviving the evaluations was not the only motivation, but to gain knowledge on how to get promoted via MTE. This research provides a new insight on the need for CPD provision according to teaching experience, especially as there are differences in the extent of participation in training and perceived impact on the practice among teacher experience ranges.

This research located critical strengths, weaknesses, and unintended consequences of MTE. It is argued that formative components of the TES, such as the issuing of a feedback report and the provision of CPD linked to results in the evaluations, should remain. A view of MTE as professionalising is nevertheless contested by drawing attention to the ITE provided by the state in this country. The identified unequal opportunity to succeed in MTE among Mexican teachers is critiqued. Furthermore, MTE is problematised in the context of its incompleteness to tackle classroom performance and the broader aspects that have an impact on the education phenomena. Moreover, the downsides of the feedback report in informing teachers' areas for improvement and a lack of a link to further CPD are discussed. Based on the evidence, this research suggests that unfaithful practices in the use of the budget for MTE, as well as the allocation of teachers to schools following MTE, might be occurring and should be combated.

In this Chapter, the identified negative impacts towards the teachers' wellbeing at different stages of the evaluations are also critiqued. It is posited that MTE prompted teachers to join study groups in preparation for the assessments; nevertheless, in this regard, the discussion focuses on the

unintended re-emergence of the teachers' union as a CPD provider, and reflections on the implications are put forward. It is maintained that future TES could address *summative* and *formative* consequences via separate processes given the evidence of cheating found in this research. MTE has critical areas of opportunity for improvement, among which the allocation of teachers to schools that need the most able educators is paramount.

Regarding CPD needs and participation in 2016-2017, this research suggests there are areas of professional development less typically taken by teachers. Arguably, these findings indicate a shortage in those areas, but potentially, reluctance to participate on the part of teachers, despite these being appreciated as CPD needs. It is argued that the number of CPD options self-perceived as needed by NQT and promoted teachers via MTE might indicate that teachers are not ready to take on the position. Also, it is suggested that these teachers might be more concerned about their professional enhancement, however, MTE might not be able to identify these differences during the hiring stage.

Despite the lower proportion of teachers taking *formal individual-oriented* CPD in 2016-2017 as compared with 2014-2015, it is argued that these participants were engaged with their continuing development, given the non-mandatory observance of CPD for most of them. The identified deterrents on participation in *formal* CPD after MTE could be related to the already mentioned limited skills in the use of online methods for professional development, although online learning was common as an *informal* CPD method in 2016-2017. Arguably, *formal* CPD was not substantially different from training available in 2014-2015, except for increased participation of market-based providers and the emergence of CPD in areas not typically related to practice-oriented subjects. The evidence is limited to assert or deny that new forms of *formal* CPD have been introduced

successfully, and the same can be asserted regarding indicators of the impact of MTE and related CPD on teaching quality and, overall, the improvement of quality education.

This Chapter is structured according to the three research questions and sub-questions. First, CPD during the academic year 2014-2015 is discussed to respond to research question 1. Following this is an extensive analysis of the strengths, weaknesses, and unintended consequences of MTE as well as the feedback report, as posited in research question 2. Finally, the Chapter concludes with research question 3, which is concerned with CPD after MTE, mainly during 2016-2017. A summary of the discussion is presented at the end of this Chapter.

## 8.2 Formal and informal CPD opportunities before 2015-MTE

This section seeks to discuss the research findings regarding research question 1 as follows:

**RQ1: What were the opportunities (formal and informal) for CPD that teachers had before 2015-MTE?**

### 8.2.1 Formal CPD opportunities before 2015-MTE

Most surveyed teachers stated that they had participated in *formal individual-oriented* CPD (67%,  $n=247$ ) alongside mandatory school staff CPD meetings in 2014-2015. This proportion, although comparatively lower than the 97% participation in a TALIS-Mexico report (Backhoff & Pérez-Morán, 2015), suggests that before 2015-MTE, most teachers in the sample had access to CPD provided by the state. However, the reduced proportion of teachers in CPD, as found in qualitative data, might have been due to less provision, which is in line with recent documental research (Cordero et al., 2017). Plausibly, while decision makers might have prioritised the application of MTE, thus neglecting *formal* CPD, teachers might have decided to join other training targeted towards the

procedures of the new TES. Nevertheless, statistical evidence showed that MTE participants were more likely to participate in *formal individual-oriented* CPD before the evaluation than non-evaluated teachers. Therefore, apart from taking CPD for improvement, satisfaction, or enhancing their career (Guskey, 2002), these original findings indicate that teachers might have taken CPD as preparation for teacher assessments.

Furthermore, this research showed that the CPD-subjects taken in 2014-2015 were already in line with MTE purposes of improving the quality of education, such as students' test results (Gil, 2018a; Moreno, 2019a; Santibañez et al., 2007). This can be asserted because of the most common CPD opportunities related to content knowledge. Furthermore, the evidence suggests that this type of CPD was already in place before the reform of 2013, as the proportions of participation are similar to those reported in a TALIS-Mexico report (Backhoff & Pérez-Morán, 2015). The introduction of MTE, henceforth, might have aimed at locating further areas of CPD, formats, or delivery modes to boost teachers' effectiveness and impact on indicators of quality. As it is argued further down the Chapter, this might not have occurred.

Workshops and diploma courses were prominent *formal CPD* approaches before 2015-MTE; nevertheless, both are considered less effective as CPD methods due to their short-term nature (DFAT, 2015; Kennedy, 2016; Naylor & Sayed, 2014). Likewise, teacher *formal individual-oriented* CPD was mostly taken at teacher centres in 2014-2015; however, empirical research depicts these centres as less appropriate for teacher CPD, mainly because of their human and material constraints (Tapia & Medrano, 2016, p. 29). Such documented lower capacity of teacher centres to cope with teacher CPD before 2015-MTE might partly explain why provision shifted towards a public-private model during the MTE era, as well as online (see section 8.6.4). Recommendations about this issue are provided in the following Chapter.



Surveyed participants experienced *formal* workplace CPD in various ways. For instance, most of them participated in the recently renamed school staff CPD meetings, both, at the beginning of the academic year, and every month. Similarly, these participants asserted high proportions of classroom visits by headteachers, superintendents, and TPA (86% ( $n=317$ ), 80% ( $n=296$ ), and 70% ( $n=259$ ) respectively). It was argued that these latter CPD forms could contribute to teacher development, especially when observations are followed by constructive conferences with the teachers (Jiang et al., 2015; Kane et al., 2014; Martinez et al., 2016; Tuytens & Devos, 2009). Yet, MTE did not include observations amongst the instruments in the TES. Current knowledge about observations in Latin-America depicts the method as weak, given the little preparation school authorities receive (Martínez Rizo, 2016; Ravela, 2011). However, as it is observed later in the Chapter, the absence of classroom observations was noted a weakness of MTE, and hence, an essential area for improvement.

### 8.2.2 *Informal CPD opportunities before 2015-MTE*

Most surveyed teachers stated that they had participated in *informal* CPD opportunities. The most and least common options, i.e. self-learning (online), and education research within the school were taken by 94% ( $n=346$ ) and 74% ( $n=271$ ) of the participants respectively. This latter is discussed in more detail in sections 8.3.1 and 8.6.3. Regarding self-learning (online), interview data revealed that teachers might prefer to exert their agency on what and when to learn, rather than being dictated content. This inference aligns with theory regarding the relativity of *time* when it comes to teachers' CPD, and the adaptations educators make according to their context, such as students' learning difficulties or interests (Frost, 2012; Mitchell, 2013; Naylor & Sayed, 2014; Timperley et al., 2007; Yoon et al., 2007). That is, teacher training by using the internet seems to be preferred as an *informal* method for development because teachers might perceive a degree

of control on what to learn and when. These perceived advantages do not seem to be part of *formal* CPD in 2014-2015, however, it could be considered for CPD following MTE.

More than 75% of surveyed teachers stated that they had participated in teacher study groups before 2015-MTE, suggesting apprehension about their knowledge and skills, potentially concerning MTE. Indeed, MTE participants were significantly more likely to join these groups in 2014-2015 than teachers who were not evaluated. In that sense, these findings challenge the view of teachers' study groups in preparation for evaluation as unintentional positive effects of TES (Cuevas, 2018; OREALC/UNESCO, 2016; Taut et al., 2011; Taylor & Tyler, 2012). Such assertions presuppose that the gatherings are bound to enhance the teachers' practice. Instead, teachers might seek to gain knowledge on the procedures of the TES. However, differently from Gil (2018a), who proposed that teachers join study groups to learn how to 'pass' MTE, qualitative evidence indicates that for some teachers and headteachers, the interest might have been how to earn a promotion via MTE, which resonates with recent literature (Cuevas, 2018). This issue is further discussed in section 8.5.3.2 as part of the identified unintended consequences of MTE. The next section tackles findings regarding the perceived impact, pertinence and quality of CPD in 2014-2015.

### 8.3 Perceived impact, pertinence and quality of CPD before 2015-MTE

This section provides a discussion about research question 1a:

RQ1a: What do teachers say about the impact of CPD before 2015-MTE on their practice, its pertinence and quality?

### 8.3.1 *Impact of CPD before 2015-MTE*

*Formal individual-oriented CPD* related to content-knowledge was perceived the most impactful among surveyed participants in 2014-2015. Notably, such perceptions were in line with the extent of participation in each option. In that sense, it can be maintained that decisionmakers, as well as teachers, undertook a pragmatic approach to CPD as follows. At a policy-making level, CPD might have been more readily available to teachers, and the quality may have been higher when relevant to areas of students' assessments. To illustrate this, the recurrence of low frequency, and low impact among the least common CPD-subjects, e.g. training on how to teach SEN students, suggests low-quality provision and not disinterest on the part of the teachers. As noted, such development areas have been a longstanding demand in the region (Backhoff & Pérez-Morán, 2015; Crosso, 2014; Damm Muñoz, 2014). Furthermore, drawing on Timperley et al. (2007) and Naylor and Sayed (2014), teachers' decision about CPD might be influenced by previous experiences with policy and practice. For example, the emphasis on students' assessments in Mexico and reward schemes, such as Carrera Magisterial, where the teachers' knowledge counted towards grades.

Before 2015-MTE the teachers' views of the recently expanded mandatory school staff CPD meetings from five to thirteen days were on the positive side with more than 70% of surveyed participants rating these gatherings as having a moderate/large impact on their practice. Nevertheless, qualitative evidence presents a sceptical view of these collective forms of teacher development. From a teacher viewpoint, these development spaces at the workplace might not be tackling the individuals' CPD needs. Such perception resonates with Kennedy (2016, p. 972) who suggests that 'as researchers, we need to move past the concept of learning communities per se and begin examining the content such groups discuss and the nature of intellectual work they are engaged in'. This is an area for future research that might require an in-depth approach to

understand how these mandatory meetings contribute to enhance the teachers' practice at the same time as being spaces meant for school improvement via the annual plan (SEP, 2014b, 2015b).

The perceived impact of classroom observations as *formal* CPD in the workplace, which varied according to the proximity between the observer and the teacher, might indicate a weakness in CPD before 2015-MTE. That is, external agents, such as superintendents and TPA were not perceived as relevant for the teachers' practice compared to other forms of development. The mixed views on this matter illustrate the difficulty it might represent the introduction of classroom observations to assess teachers' performance, as well as being a formative strategy for teacher development (Gabriel & Allington, 2012; Martínez Rizo, 2016). These findings further pose questions on the role of school leaders, such as headteachers, superintendents, and TPA about the training they are provided with in order to undertake observations (Ravela, 2011).

In general, the survey participants perceived the impact of *informal* CPD on the practice positively. For instance, CPD taken online was considered impactful on the practice by 86% ( $n=299$ ), and its statistically significant correlation with consulting academic research suggests that teachers search the internet for materials that support their everyday work. These findings are in line with recent research that shows a positive correlation between the use of the internet and the consultation of research evidence (Nelson, Mehta, Sharples, & Davey, 2017). However, this study and Nelson et al. (2017) argue that such use of the internet as an *informal* method for CPD might not be taking advantage of the full potential of the web. Similarly, although the perceived impact of education research within the school as *informal* CPD was the lowest among the options, these views are on the positive side, given that 61% ( $n=165$ ) of the surveyed participants that experienced this CPD considered it as of moderate/large impact on the practice. Overall, teachers might require extra support to receive the most of these self-directed development options.

### 8.3.2 *The pertinence of CPD delivery modes before 2015-MTE*

As seen, in-person, online, and blended learning were common *formal* CPD delivery-modes among surveyed participants before 2015-MTE (Cordero et al., 2017). Nevertheless, *formal* CPD shows that in-person prevailed in terms of perceived pertinence for teacher development with three-quarters of the surveyed teachers rating it as moderate/much pertinent. Conversely, online CPD, apart from being experienced by fourteen per cent fewer teachers, was perceived ten per cent less moderate/much appropriate for development than in-person CPD. The actual access to the internet and lack of habits in the use of computers for learning might be driving the lower perceptions. Furthermore, according to the literature, these individuals did not receive training on the use of ICT during their ITE (Rodríguez & Veytia, 2017). Nevertheless, despite its lower perceived pertinence, online learning was on the positive side of perceptions, and was still regarded as important for *formal* teacher CPD before 2015-MTE.

Furthermore, the *informal* use of online learning for development reflected more favourable views. Not only did 94% ( $n=346$ ) of teachers take *informal* CPD via online means, but the perceived impact on the practice was outstanding (see next section). These perspectives resonate with Yates' (2014) small study with practitioners who took CPD via online formats. Her research revealed that when a course promotes strong engagement with the content and a tutor, and not necessarily with other participants, learning outcomes can be favourable. That is, for Yates, online CPD is viable as a teacher training delivery approach, and Mexican teachers seem to agree on both *formal* and *informal* modes.

### 8.3.3 *Quality of CPD before 2015-MTE*

The research regarding participants' perceptions of the quality of CPD before 2015-MTE is closely related to the perceived impact on the practice. In that sense, the most common *formal* CPD, both

*individual-oriented* and workplace teacher training, as well as *informal* CPD, were considered quality CPD. Qualitative data from the survey depicted quality CPD as being delivered by well-trained personnel, as well as being focused and impactful on their teaching practice. Furthermore, it utilises ICT and promotes the teachers' interest to learn more independently. In a context like Mexico, where the teachers' insight into matters of education policy are rarely surveyed (Cordero et al., 2013; Tejedor, 2012), these findings contribute to understanding the underlying rationales of teachers to join and be engaged with CPD (Guskey, 2002; Timperley et al., 2007; Yoon et al., 2007). These results also show that quality CPD might not necessarily be one that directs the teachers' learning, but one that inspires and leads to inciting independent learning among educators (Frost, 2012; Hustler et al., 2003; Timperley, 2011). Such insight is essential for decision makers who could develop CPD targeted to those teachers' views of quality CPD.

Regarding *formal* workplace teacher CPD, such as mandatory school staff CPD meetings and classroom observations, there is mixed evidence on the views of the research participants about the quality of these further development opportunities. While survey data depict school staff CPD as impactful on the practice, qualitative data described these spaces as unsuitable for professional development, mainly because of untrained personnel in charge of leading intensive CPD meetings. The impact of classroom observations was also lower than the school staff CPD meetings, but their quality was not mentioned by the interviewees. Teacher CPD in the workplace, according to these findings, has the potential to become a Professional Learning Community (PLC). However, its quality can be improved; for instance, by enhancing the leadership in the schools, and the capacities among those undertaking counselling roles, e.g. superintendent and TPA who are external to the school. Strong leadership and a common interest to improve are necessary conditions for PLC to thrive (Bolam et al., 2005; Mitchell, 2013; Stoll et al., 2006; Wang, 2015).

Qualitative data perceptions depict teacher study groups available on the market as being of poor quality, mainly because these were provided by individuals who most likely had not undergone MTE themselves. These findings are in line with published research that portrays market-based study groups as doubtful on their quality to help teachers improve (Padilla Medina, 2016b). As another element related to the perceived quality of CPD before 2015-MTE, most surveyed teachers were evaluated after taking CPD in an elementary manner, in line with *Level 1: Participants' reactions* and *Level 2: Participants' learning* of Guskey's model for CPD monitoring (Guskey, 2013, 2016) in section 3.6.7. This finding addresses a knowledge gap concerning how CPD impacts teachers' and students' learning (Cordero et al., 2013; Tejedor, 2012), and suggests the absence of further information on the actual use of new knowledge and skills that might prevent teachers and policymakers from benchmarking progress. For instance, teachers might repeatedly enrol in training for which their development needs were already covered in previous courses, an issue directly concerned with the standardisation of CPD (Mitchell, 2013).

Nonetheless, MTE was bound to supersede this pitfall by including small-scale research projects as part of CPD following assessments, a method known for its contribution to improved teaching and students' learning (Akiba & Liang, 2016; Ingvarson et al., 2005; Jiang et al., 2015; Kane et al., 2014; Martinez et al., 2016; Tuytens & Devos, 2009). In this research, however, there is not enough evidence to assert or deny that such change occurred, as discussed in the upcoming sections of this Chapter. The next section is a discussion regarding the extent of participation and perceived impact of CPD on the practice according to teaching experience.

## 8.4 Participation and perceptions of CPD impact on the practice according to teaching experience before 2015-MTE

Findings concerning research question 1b are discussed next:

RQ1b: Did the extent of participation and perceptions of how CPD impacts on their practice vary according to teachers' experience?

Regarding the extent of participation in *formal individual-oriented* CPD-subjects, as shown, teachers with 4-5 years of experience and those with more than 36 years of experience reported involvement below the rest of surveyed teachers. The relative sample size of these groups and the varying occupations teachers have throughout their teaching career might be related to the observed patterns in the data. Nevertheless, this research presents an original contribution to knowledge regarding the lack of attention to teacher CPD provision according to the teachers' experience before 2015-MTE. These findings suggest the existence of a generational gap (Espinosa, 2014) that could be tackled by fostering exchange opportunities between more and less experienced teachers. Firstly, it was observed that teachers with 4-5 years of experience reported the highest rates of impact on the most common *formal individual-oriented* CPD-subjects, which were practice-oriented areas. In line with similar research in China (Thomas et al., 2018), it is argued that the knowledge base of relatively new teachers requires extra support during the initial years of their career. Therefore, these results provide an insight into the development areas where these educators self-perceive to be less prepared. This original insight has implications for policy on ITE and the possible induction programmes these teachers can be allocated to during their initial years working in schools (*ibid*).



Secondly, also regarding *formal individual-oriented* CPD, teachers with 36+ years of experience found CPD about non-academic content as the most impactful on their practice, i.e., attitudinal and managerial development. In this regard, it is worth reflecting that *formal* CPD opportunities concerning the teachers' emotional and well-being development are often less available in centrally managed CPD (Bubb & Earley, 2008; Mitchell, 2013). Furthermore, senior teachers might seek further training about school management areas as a means for career improvement (Guskey, 2002; Hustler et al., 2003). Reflecting on the needs of more senior teachers is relevant because, in the upcoming years, the proportion of teachers of 30+ years in the Mexican education system is expected to double by 2023 (INEE, 2015b, p. 193). Still, CPD before 2015-MTE might not have considered the interests of teachers with different professional experiences.

The differences were also observed concerning the extent of participation and perceived impact of workplace CPD. For example, teacher contact with classroom observations conducted by headteachers, superintendents, and TPA was comparatively lower among those with 16-25 years of experience. Arguably, these teachers might be trusted more concerning their classroom performance. Therefore, the attention might be devoted to other teachers' groups which are potentially more in need of guidance and support, e.g. NQT and those who are near retirement. Also, the least experienced surveyed teachers considered workplace CPD to have the least impact on their practice, which is contrary to the senior teachers, who perceived workplace CPD to have more impact on their practice.

Similar patterns were found regarding *informal* CPD, where young and mid-career teachers utilised and perceived *individually-oriented* alternatives to be more impactful on their teaching practice. This was different among senior teachers who considered *informal* CPD where *collaborative* work took place to be the most impactful on the practice. Altogether, these results might indicate that

experienced teachers have learnt that the development opportunities happening in the school are pertinent for improvement and that much of the *know-how* of quality teaching is collectively constructed (Bolam et al., 2005; Thomas et al., 2017; Vescio et al., 2008). Likewise, the evidence suggests that a change in the approach to CPD for teachers might be needed as the current standardised and homogenous provision might not serve the training needs of teachers who are at different career stages and in various contexts (Johnston, 2015; Mitchell, 2013). An overall conclusion is provided at the end of this Chapter. The next section discusses the strengths, weaknesses, and unintended consequences of MTE.

### 8.5 The strengths, weaknesses and unintended consequences of MTE

The evidence regarding CPD available in 2014-2015 and its perceived impact on the practice suggests that teachers were well-equipped in various academic CPD-subjects and had experienced different *individual-oriented* CPD as well as CPD in the workplace. Therefore, the introduction of MTE might have been intended to identify further teacher CPD needs individually, provide targeted training, as well as regulate the hiring and promotion of teachers in the education system. The former intention is critical because previous international experience with TES has noted the absence of a connection between the teachers' results in evaluations, and further CPD (Cordero & González, 2016; Escárcega & Villarreal, 2007; Santibañez & Martínez, 2010; Santibañez et al., 2007). Therefore, this research investigated how well MTE informed teachers of any potential areas to enhance their practice, among other relevant aspects of the new TES. This part of the Chapter is a discussion of the findings regarding research question 2:

**RQ2: What are the strengths, weaknesses and unintended consequences of 2015 & 2016 MTE in informing further CPD decisions and improving teacher performance?**

### 8.5.1 Strengths of MTE

The strengths of MTE identified in this research are discussed according to three broader areas. The first one was titled *MTE, a better method for hiring and promotion* and addresses MTE as a regulatory framework that diminishes the mediation of the teachers' union in matters of appointment to the job and promotion schemes. Subsequently, *formative components of MTE for teacher development* discusses findings relating to the feedback report and other developmental aspects of the TES. Successively, *MTE, an approach to professional status* problematises the new TES as a teacher development initiative that helps teachers to further their professional status.

#### 8.5.1.1 MTE, a better method for hiring and promotion

More should be done to ensure that the teachers' union is kept aside when decisions on teacher hiring and promotion are made. All interviewees depicted MTE as a suitable framework concerning teacher hiring and career development when compared to the former method, i.e. joint committees. These views might relate to previous accusations about the teachers' union corporate misconduct and other illegal practices (INEE, 2017b; Pérez Ruiz, 2014; Torres, 2019). These insights are new (Cuevas, 2018) and contrast with perceptions of the TES as a regulatory framework of the teachers' job (Arnaut, 2014; Gil, 2018a). These findings also contrast with the overt discontent with education reform that the teachers showed following the incarceration of the former union leader (Pérez Ruiz, 2014; Poy, 2016). From a teacher quality perspective, Estrada (2015) has argued that hiring teachers via an assessment in Mexico is a better approach to appointing effective teachers, than the discretionary method, i.e. the joint committees.

Nevertheless, the termination of a longstanding and mutually beneficial relationship between the government and the union (Gil, 2018a; Pérez Ruiz, 2014), which is currently being argued, is hard to believe. So far, this PhD research has revealed the ways of hiring and rewarding teachers

involved in the reform, indicating a redistribution of decision-making and power. Furthermore, it has also shown a desire to make this redistribution happen via assessments, which aligns with one of the purposes of MTE about regaining control of education affairs (this is further discussed in the unintended consequences section). This research agrees that discretionary methods for teacher hiring and promotion are removed, and mechanisms that dispense with the participation of the union are reinforced. Nevertheless, although these changes are more evident at the policy level, in practice, a radical separation between the political authority and the teachers' representatives might not be occurring, which is discussed later in this Chapter. Likewise, the contribution of MTE to in-service teacher development, for example, via feedback and CPD seems less clear, and hence, it is discussed next.

#### ***8.5.1.2 Formative components of MTE for teacher development***

Feedback provision to teachers is a component of MTE that should be maintained. Interviewed teachers commend the procedures of MTE for tackling teacher performance, e.g. the evaluation phases concerning the written assignments. Likewise, the *formative* components of the TES, such as a feedback report and the possibility to address weak areas of performance via CPD to avoid high-stakes consequences were novel in this context. This is a vulnerable area of TES (Callahan & Sadeghi, 2015; Donaldson & Papay, 2014; Papay, 2012) that MTE seemed bound to tackle. The evidence also indicated that MTE spurred teachers to reflect on their teaching during the preparation of evidence for assessment, which has also been identified as a positive effect of TES in other research (Darling-Hammond, 2010). Similarly, from a policymaker perspective, the feedback report was considered essential to design future CPD, which is often valuable knowledge that decision makers cannot afford to have (Guskey, 2016; Timperley, 2011).

However, quantitative findings regarding the feedback report (i.e. the lesson plan, the student portfolio, and the exam) are not conclusive about its informativeness for detecting the teachers' areas of improvement. Furthermore, although MTE instruments gained face-validity among some teachers regarding the identification of their competences, the exam was less accepted, which resonates with findings from previous local research (INEE, 2016c). Existing research argues that exams are not a sufficient enough way to address the complexity of teaching (Darling-Hammond, 2001; Murphy, 2013). Still, for the headteachers and teachers who were interviewed, the formative components of MTE were proof that dismissal was not an immediate consequence of underperformance in the evaluations. Therefore, it is argued that the provision of targeted formative feedback for teachers as part of a TES is a component that should be strengthened in upcoming teacher evaluations.

#### ***8.5.1.3 MTE, an approach to professional status***

A perception of MTE as professionalising teachers misses the broader context of ITE in Mexico. From a policymaker's viewpoint, MTE served to enhance the professional status of teachers. This perceived strength of the new TES relates to the previous lack of teacher certifications following completion of ITE in normal schools or university programmes. This located strength makes sense in a context where the teachers' union held vital power to decide on matters of the teacher workforce (Barrera & Myers, 2011; Estrada, 2015). However, this view might be losing sight of how well teacher ITE in normal schools is coping with national standards, and whether these institutions have the resources to graduate good quality teachers. A good example of a strong state that looks after their teachers is the partnership between the Singapore's ministry of education and the National Institute of Education at Nanyang Technical University, where candidates who are to become student-teachers undergo a rigorous process involving interviews. However, once a place is granted, the students gain a civil servant status, receive pay during their studies, and are hired

once they obtain a degree in education (Tan, Liu, & Low, 2017). Before 2015-MTE, graduates from normal schools were hired; however, this situation changed under MTE. It is therefore argued that depicting MTE as a professionalising device offers a partial perspective of the broader issue of ITE in Mexico.

In summary, the strengths of MTE concentrated on three broader areas. Firstly, the new TES was perceived as a better method to enter the education system and be promoted without the mediation of the teachers' union, but via the teachers' performance in the assessments. Secondly, the inclusion of formative components in MTE and its relationship with CPD was also considered a strength of the new approach to teacher evaluations. These perceptions relating to the developmental aspects of MTE are in line with the literature regarding the acceptability of TES when formative components are part of the assessments (Jiang et al., 2015; Tuytens & Devos, 2009) which further allow teachers to amend areas of lower aptitude (OECD, 2013b). Finally, MTE was seen as contributing to the enhancement of teachers' professional status, especially in the context of prior discretionary methods to enter the professional teaching service. Still, it was noted that the methods of recruitment and development of Mexico's teacher workforce at normal schools deserve focalised attention to gain knowledge on the potential pitfalls of teacher preparation as part of the broader picture. The identified weaknesses of MTE are discussed below.

### 8.5.2 Weaknesses of MTE

The weaknesses of MTE are discussed under four overarching headings. The first one, *lack of teacher consultation and aspects for improvement in MTE*, addresses the issues regarding a perceived lack of participation from teachers and other stakeholders in the formulation of policies, and the broader areas that might not have been considered in the TES. After this, *the insufficient connection between the feedback report and subsequent CPD* discusses the findings regarding the

utility of the feedback report to inform teachers individually about further CPD. This subheading also tackles issues regarding a lack of induction and follow-up for MTE participants. The third heading tackles *issues regarding teacher experience in MTE*. Then finally, the last heading, *lack of transparency in MTE*, addresses a series of perceived drawbacks of MTE concerning the budget for the TES and allocation of teachers to posts following the evaluation.

#### ***8.5.2.1 Lack of teacher consultation and aspects for improvement in MTE***

Firstly, evidence from interviews suggests that teacher preparation for MTE differed among the participants, which implies that the ground was not levelled for everyone despite in-service teachers' entitlement to preparatory courses before sitting MTE (DOF, 2013a). It is therefore argued that TES should not only be valid and reliable, but also fair (Donaldson & Papay, 2014). However, as previously discussed, the research participants had access to CPD in the more traditional subjects and formats, which arguably should suffice to sit the evaluation, unless MTE assessed something utterly different from the routine work of teachers. For example, the written assignment related to the lesson plan was considered novel in this context (DIE-CINVESTAV, 2017); therefore, teachers should have been informed of what was expected of them to demonstrate through an evaluation instrument like this.

Secondly, although the teachers' ICT ability was not assessed, these skills were vital in the evaluation process, hence why some teachers might have been at a disadvantage. This research suggests that older teachers were in this situation and so the methods utilised in MTE might not be sensitive enough to compensate for this issue. As mentioned, in-service teachers were not offered related training during their ITE (Rodríguez & Veytia, 2017). Therefore, the evaluation might have favoured those who were the most computer literate to receive leadership roles in the

education system, who happened to be younger (Tello-Leal, 2014), and possibly less experienced, as shown in local research (Ruiz, 2018).

Thirdly, MTE trusted a limited range of evaluation instruments to tackle the teachers' performance. Therefore, this research maintains that the absence of classroom observations (Cordero et al., 2013; OREALC/UNESCO, 2016; Schmelkes, 2015b) and alternative performance instruments for those unable to generate text-based evidence was a downside of the TES. Moreover, recent research shows discrepancies between the extreme categories, i.e. *outstanding* and *insufficient*, and the actual teaching skills under classroom observation protocols (DIE-CINVESTAV, 2017). Therefore, the inclusion of a classroom observation component in a TES might add useful data to reach better-informed decisions on a teacher's performance. However, the inherent downsides of this approach, such as the need for multiple visits and more than one observer, should be considered (Kane et al., 2014; Lavigne, 2014; Martínez-Rizo, 2012; Martínez Rizo, 2016). Similarly, the TES could benefit from including evaluation instruments that address pedagogical knowledge rather than only content knowledge, which have been found less informative of actual teaching capabilities (Darling-Hammond, 2001; Guerriero, 2013; Murphy, 2013). For instance, a closer approach to how teachers prepare lessons and formative dialogue with them could be a better method (Guerriero, 2013; Taut et al., 2014).

Fourthly, MTE was designed to assess teachers individually (Cordero & González, 2016; Ramírez & Torres, 2016), and its procedures were coherent with that aim. Nevertheless, one of the purposes of the education reform of 2013 was to improve the quality of education (DOF, 2013a), a notion possibly concerned with students' outcomes (Gil, 2018a; Moreno, 2019b; Santibañez et al., 2007). Therefore, future policy development of TES could be enhanced by tackling issues of educational effectiveness more comprehensively, for instance, considering the multilevel nature of education,



as maintained in the vast EER (Creemers & Kyriakides, 2006; Mortimore et al., 1994; Naylor & Sayed, 2014; Reynolds et al., 2014; Sammons, 1999a; Scheerens et al., 2003).

#### ***8.5.2.2 The insufficient connection between the feedback report and subsequent CPD***

There are mixed perceptions among surveyed participants about the feedback report to inform teachers individually about their strengths, weaknesses, and CPD areas. These findings are in line with research that highlights the limitations of MTE to help teachers decide on further training (INEE, 2016b, 2016c). Therefore, these results question the actual provision of bespoke CPD as advertised by the federal education authority following the first major 2015 MTE (SEP, 2016e). Similarly, headteachers and teachers who were interviewed posited that MTE implementers seemed reluctant to allow teachers to revise their results in MTE. These views resonate with previous relevant investigations on the importance of transparency of TES (INEE, 2016b; Santiago et al., 2013; Steinberg & Sartain, 2015), mainly, to assure teachers on the developmental side of assessments (Yoo, 2019).

In line with recent literature (Cordero et al., 2017; DIE-CINVESTAV, 2017), this research argues a lack of connection between MTE results and CPD, mainly among NQT and teachers for whom further training was not mandatory due to their results in the evaluations. Therefore, according to national statistics, this situation may imply that most teachers sitting MTE, because of their results in the evaluations (see section 2.7.3), would not be required to take further training. In that sense, MTE seemed weak as a TES was bound to identify and tackle underperformance via meaningful, targeted feedback and CPD. While teachers may know more about their performance by MTE feedback report, they must know what to do next (Hattie & Timperley, 2007), the evidence of this research and similar inquiry show otherwise (Cordero et al., 2017).

### **8.5.2.3 Issues regarding teacher experience in MTE**

A lack of consideration of teaching experience in the evaluations was problematic. As policymakers noted, the teaching profiles do not distinguish teachers according to career stages (OREALC/UNESCO, 2016). In that sense, MTE seems to have been designed to address everyone as identical to one another, rather than individuals with specific skills and professional needs (Johnston, 2015). This is problematic in Mexico because teachers' credentials vary due to past policies on ITE and former CPD programmes (IEESA, 2012; Inclán, 2016; INEE, 2015b). Therefore, MTE could be limited in addressing and helping teachers to improve indicators of low performance. This perceived weakness of MTE is better illustrated by the younger teachers, possibly more skilful in the use of ICT, who were more successful than more experienced teachers at gaining leadership roles via MTE (Ruiz, 2018). Within the scope of this research, this situation is labelled as a weakness of MTE; however, this does not imply that younger teachers were less able to take on leadership responsibilities.

There was no evidence in this research that indicates that teachers become more skilled with the accumulation of years of experience. In this regard, existing research shows that teachers are typically more effective within the initial five years of their practice (Chingos & Peterson, 2011; Clotfelter et al., 2007; Croninger et al., 2007). Other research maintains that it depends on the context (Sandoval-Hernandez et al., 2015). Therefore, if future policy on TES included consideration of years of experience in assessments, the challenge would be to define in what ways Mexican teachers differ concerning career stages, and whether those differences depend solely on the accumulation of years.

Standards for teaching, according to teacher career stages, are used in various contexts (DfE, 2011; Education Services Australia, 2012). Nevertheless, contemporary literature has critiqued these

frameworks, mainly with regards to their limited relevance to help teachers progress from one performance-category to the next, and because of its emphasis on ‘years of teaching experience as a proxy for quality’ (Clinton & Dawson, 2018, p. 325). Therefore, it would be appropriate to tackle this concern via ample consultation with teachers and specialists to determine viable manners of helping teachers from diverse backgrounds and teaching experiences to enhance their practice. As challenging as it might be to describe these potential differences, it may be harder to define how to appraise those differences and provide the relevant professional development (Isoré, 2009; Martínez-Rizo, 2012; Martínez Rizo, 2016).

#### **8.5.2.4 Lack of transparency in MTE**

Interview teachers expressed their concerns regarding two broader areas of transparency of MTE; the use of available budget for MTE and CPD, and the actual allocation of teachers to teaching vacancies according to results in the TES. Regarding the first point, teachers in this research and recent literature maintain that CPD provision diminished during 2015 through mid-2017 (Cordero et al., 2017). Therefore, the pledge for a made to measure teacher CPD, essential to the rationales posited for the TES, fell short following unjustified budget cuts. For instance, from a total of MXN 1,654 million (£67 million) authorised in 2017 for one-year CPD for teachers, only 42% was used for this purpose (Roldán, 2018), that is MXN 463.12 (£18.78) per teacher<sup>29</sup>. Contrarily, despite MXN 70.6 million (£2.8 million) being approved for the advertising of the reform, the Secretariat of Education spent MXN 1,963 million (£79.6 million), that is, 2,680% above the budget (*ibid*). Underfinancing teacher training has been systematic and documented in previous policies on teacher development (Trejo Catalán, 2019). For example, during the academic year 2013-2014, the

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<sup>29</sup> The teacher-ratio expenditure in CPD was calculated considering 1.5 million teachers and the same conversion rate used previously in this Chapter.

first year of the education reform, the government spent, on average, MXN 363.91 (£14.75) per teacher for their CPD (INEE, 2015b, p. 119). However, this small increment in five years shows little commitment on this matter, therefore, 'current data lead to believe that, financially speaking, the resources dedicated to CPD for teachers are insufficient' (Cuevas Cajiga & Moreno Olivos, 2016, p. 17).

Regarding entrance to the system, interview insight revealed that although MTE participants were ranked according to their results in the evaluation, it did not guarantee their allocation to all vacancies given the enduring presence of unfair arrangements and the hand of the union. Situations like those not only diminish the credibility of the TES, but also suggest that old and corrupt practices continued (Gil, 2018a). Therefore, it is difficult to reconcile a view of MTE as a progressive policy set to restore transparency on matters of teacher employment and reward since evidence found in this research, as well as in previous studies (INEE, 2016a), shows a lack of transparency in the allocation of teacher posts following the evaluation. These situations reinforce a complicated position in Mexico, where 'it is not what you know, but who you know' (Gil, 2018b). Nevertheless, although this can be highlighted as a weakness of the policy, it is hardly a direct problem of the TES, but of those in charge of enforcing and sanctioning the fair allocation of available vacancies to suitable teachers.

Overall, the weaknesses of MTE revealed a series of areas for improvement, which were deeply informed by those not previously consulted about the new TES. The unequal preparation for MTE, and the implementers taking for granted that all teachers knew how to use computers and the internet were among the most prominent downsides identified. The lack of classroom observations and alternative instruments to evaluate the teachers' actual performance were missing. Also, there is a perception that MTE focused on individuals, and not on the schools' dynamics and other factors

related to education quality, which is not enough to tackle issues of quality. Concerning feedback reports, the lack of follow-up, and in some cases, of CPD, were considered a weakness of MTE.

Furthermore, there is a general perception that MTE should have included teaching experience as part of the assessment so that different evaluations were applied depending on the professional expertise of teachers. However, how teachers differ according to professional expertise was less distinguishable. Finally, this research showed two issues relating to lack of transparency; one regarding the use of the authorised budget for MTE and CPD, and the other concerning the potential continuation of corrupt practices in the allotment of teachers to vacancies following MTE results. Next, the unintended consequences of MTE are discussed.

### *8.5.3 Unintended consequences of MTE*

The discussion of the unintended consequences of MTE was organised in four overarching headings as follows. *Teachers' wellbeing amidst education reform* tackles the affectations to the teachers' morale at various point of implementation of MTE. Subsequently, *the emergence of teacher study groups and a potential new alliance government-union* discusses teacher preparation for MTE. Next, *motivations to achieve high in MTE and approaches to succeed* examines the dominant presence of the general result in MTE over the developmental aspects of the TES. The fourth heading tackles *issues on the unequal distribution of teachers following MTE*. It is concerned with the observed continuation of the *status quo* regarding the lower distribution of quality teachers to the least developed communities.

#### **8.5.3.1 Teachers' wellbeing amidst education reform**

MTE might have negatively impacted the teachers' wellbeing at different points of implementation. Firstly, during the introduction, due to a lack of communication about the TES. Secondly, during

the evaluation, at the testing centres. Then finally, when teachers received their results. Interview participants identified the non-official channels such as online social media taking the lead in informing about MTE while disseminating inaccurate information and generating stress. This situation resonates with what Ball calls 'mediators of policy' (1993, p. 12, 2015) suggesting that in practice, often, teachers do not read the policies first hand. The consequence is an array of responses to policy and interpretations that might not be in line with the text-purposes of the original document.

A recent study revealed that the teachers, mainly the younger ones, used the internet and WhatsApp groups to keep updated about MTE, but the information they received was inaccurate (Cuevas, 2018). This suggests that communication issues might have been avoided if the education authority circulated reliable, visible information and teachers could access the primary sources. This latter, however, might require more than simple recommendations for them to do it, but well-structured and ongoing training for educators to approach primary policy sources. It is well-known that the high-stakes consequences attached to evaluations trigger apprehension among teachers (Donaldson & Papay, 2014; Lavigne, 2014). Therefore, this is an essential issue that decision makers should consider. Mainly when formative and summative consequences are put together in the same TES, as one may negatively affect the other (Callahan & Sadeghi, 2015; Marzano, 2012; Popham, 1988); this issue is further discussed in section 8.5.3.3.

In previous research, the presence of police during the evaluation day was identified as contributing to the stressful environment around MTE (INEE, 2016a). However, this research suggests that police presence was interpreted in two different manners; one of them in line with previous research findings, and the other relates to a more protective role of the state for those willing to sit MTE. These two views resonate with the general perceptions of MTE identified in this

research, one of which displays a genuine commitment to the TES and its goals, and the other, despite showing adherence to the policy, does not support it (Jiang et al., 2015; Martínez Rizo, 2016). With regards to the concrete examples of poor sanitary conditions and mistreatment in secure centres, this research contributes to the current knowledge on the issues teachers noted on the day of the assessments (INEE, 2016a). Altogether, operational issues that exhaust teachers seem preventable and hence, an area of opportunity for future TES policy.

Furthermore, as informed by a policymaker and a headteacher, the difficulties in appointing NQT and new headteachers to schools where dissident teachers hold a strong presence (de Ibarrola, 2018; López, 2013; Sánchez & Corte, 2015) is an unintended effect of the TES. Nevertheless, there is not enough evidence from this study to argue that this was a generalised phenomenon in Mexico. This confrontation between those for and against the new methods for teacher hiring and promotion shows little commitment on the part of MTE implementers to understand and negotiate support for reform (Naylor & Sayed, 2014). At the same time, it neglects a much graver matter related to the governance of the education system across Mexico. In other words, having introduced MTE regardless of the effects it may cause in places where it was fiercely opposed shows an urgency to have the reform done within the span of the federal government (Johnston, 2015; Sahlberg, 2006). Consequently, adopting an ill cycle of education policy changes that might not lead to significant and long-lasting improvement.

#### ***8.5.3.2 The emergence of teacher study groups and a new alliance between the government and the union***

As previously discussed, MTE spurred teachers to learn about MTE procedures, which arguably was not an overt expectation of the TES; indeed, policymakers who were interviewed saw this preparation as supporting the teachers' professional knowledge, and not as preparation for exams.

The evidence of this research shows that among interviewees, the teachers' union was prominent as a training provider (INEE, 2016b; OREALC/UNESCO, 2016). Nevertheless, the teachers' union is considered unfit to provide teacher training due to their political agenda and duties (Guevara Niebla, 2016). However, interview participants suggested the teachers' union provided useful support to NQT and in-service teachers in preparation for MTE. This agreement between the authority and the teachers' organisation can be portrayed as *a new alliance*<sup>30</sup>, rather than a rupture, which was initially believed, following the incarceration of the former leader of the union (Echávarri & Peraza, 2017; Ornelas & Luna Hernández, 2016). Nevertheless, it is notable that this *new alliance* is linked to the transfer of MXN 650 million (£26.3 million) between 2013 and 2016 to the union 'to promote the "enhancing" aspects of the education reform via advertising campaigns' (Poy, 2016, col. 1).

This renovated pact arguably compromises the functions of these two entities because it complicates the original aim of the state to have control of education matters, which includes teachers and their professional development. Under this new pact, the state delegates and pays some aspects of teacher CPD to the union via taxes (Poy, 2016; SEP, 2017d). It also compromises the teachers' union's original aim as a representative of the teachers and their rights because the monetary transfers regarding the CPD for teachers they offer may be restricted to their support to MTE. As noted, this is an issue drenched in contradictions because, in the beginning, teachers opposed the union's support of the reform; yet, they seem happy with the organisation as a CPD provider, precisely to be successful in MTE. These are two sides of the same coin given the historic

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<sup>30</sup> The *new alliance* is a term that allegorically compares this agreement with one of the previous deals signed by the Mexican government and the SNTE to improve the quality of education in 2008 (López, 2013; SEP-SNTE, 2008).



dependency of teachers to the union as an employment mediator and leader of the education norms in Mexico (Cuevas, 2018).

### **8.5.3.3 Issues related to the predominance of the general result in MTE**

The evidence showed the general results in MTE as an essential driver of the teachers' concerns for succeeding, potentially because no previous TES in Mexico included consequences for the job, such as dismissal (Cordero & González, 2016). In this respect, interview participants revealed that to obtain a favourable result in MTE, some teachers may have *gamed the system* by using false performance-related evidence. This issue suggests that the workers' response to high-stakes consequence policies might have been dealt, by some, via *fabrication* of acceptable behaviour to avoid punishment (Ball, 2003; Donaldson & Papay, 2014; Goldstein & Spiegelhalter, 1996; Webb, 2006). These unintended consequences about the focus on results in MTE cannot be fully understood but in conjunction with a view of the new TES as a medium for career progression (Cuevas, 2018). This issue was already discussed regarding one potential rationale of teachers to take CPD in the wake of the TES.

Furthermore, MTE was demotivating for some interviewees as a scheme for rewards, given the elimination of teaching experience and certificates of participation in CPD, which were commonplace criteria in previous TES (Cordero & González, 2016). Paradoxically, societal models based on *meritocracy*, such as MTE, are meant to replace the previous way, that is, *gerontocracy*, or the rule of the old ones (Young, 1958). Therefore, while these participants seemed happy with the new TES as it facilitates the promotion of young teachers to higher tier positions, rewarding people just because of their age is the kind of approach that MTE may have sought to overthrow. For example, in the case of Korea, teaching experience counts towards the teachers' scores in the assessment, and academics argue that such a system has provoked 'excluding young and able teachers' (Yoo, 2019, p. 94).

Moreover, although the relationship between professional development and rewards was encouraged in previous TES in Mexico (CREFAL, 2017; Santibañez et al., 2007), arguably, linking CPD to teacher salary increments, as in Carrera Magisterial, may compromise the purpose of teacher development. CPD for teachers, as purported, should accompany the teachers' career in a way that supports teaching improvement (Bubb & Earley, 2008; Mitchell, 2013; Timperley, 2011), and this can take a myriad of formats which should not be constrained to a set of rigid development options for the sake of accreditation. In that sense, it is crucial to regain the original sense of CPD among these teachers, which might be feasible if teacher development options are kept separate from incentives and high-stakes consequence policies.

#### ***8.5.3.4 Issues on the unequal distribution of teachers following MTE***

As posited by a policymaker, MTE may contribute to maintaining the gaps between the affluent and the disadvantaged communities, as those with the best results in MTE can currently choose where to work. According to Gil (2018a), MTE contributes to maintaining the gaps between these two distinct contexts. Therefore, unintentionally, the new TES might be missing the opportunity to improve the chances that good quality teachers are assigned to deprived schools. Therefore, consideration of the distribution of outcomes is a fundamental matter of education policy that the designers of the new TES might not have foreseen (Ball, 1993; Sayed & Ahmed, 2015b).

In brief, the unintended consequences of MTE regard potential concerns for the teachers' wellbeing before, during, and after the evaluations. Also, the assessment as a motivation for the teachers to become involved in preparatory courses regarding MTE procedures was discussed. In this regard, the participation of the teachers' union, which arose as a teacher training provider, was considered unintended, mainly because it allowed the organisation to stay current in terms of

teacher workforce affairs. The central regard of the result in MTE among teachers might have derived in faking evidence of performance. Similarly, scepticism on the procedures promoted through MTE might have discouraged some teachers from participating in further CPD as it is no longer considered as part of the assessments. Dropping the teachers' years of experience from the criteria in MTE does not seem fully justified for these teachers. However, the literature contests the views of those who maintain that professional experience should count. Finally, the implementation of MTE might be missing the opportunity to allocate those better-evaluated teachers to the more in need localities given the current system that allows these teachers to choose where to work. The next section discusses the findings on the CPD needed and taken after MTE.

## 8.6 Teachers' CPD needs and participation in further training in 2016-2017

In the previous section, the strengths, weaknesses, and unintended consequences of MTE were discussed. It was argued that the new TES presents an opportunity for hiring and granting promotions without the mediation of discretionary methods; however, such frameworks might require support to avoid the continuation of partisan interests in the hiring of teachers. The formative components of MTE were also commended; however, the feedback report is not a very informative instrument in its standardised format. Similarly, access to CPD that is relevant to the areas in which teachers were found to have some weaknesses seems to be lacking following MTE. Furthermore, it was contended that teachers might focus more on the results of assessments, given the consequences for the job; therefore, it would be more appropriate to separate the formative and summative aspects in future TES. Although a differentiated assessment according to the teachers' experience was an expectation, such differences between teachers were less apparent for the interview participants. Therefore, it was suggested to explore and potentially generate teacher career stages that reflect those differences more faithfully. Consideration of the

side-effects of TES is also necessary, and in this research, such areas concentrated on the considerations towards the teachers' wellbeing, the revitalisation of the teachers' union via agreements for CPD provision, and the potential gap-widening between developed and deprived regions due to the current method of allocating teachers following MTE results.

This section discusses findings concerning research question 3 and 3a as follows:

**RQ3: What CPD options did MTE participants need and take after the evaluation, particularly in 2016-2017?**

**RQ3a: Did perceptions of CPD needs after MTE vary according to teaching experience?**

#### *8.6.1 CPD self-perceived needs after MTE*

Some discussion concerning the upside-down order of CPD needed after MTE, and the one taken in 2014-2015, has already been presented in Chapter seven. Another aspect worth mentioning is the potential lack of attention to the least provided, but also most needed, CPD areas before and after MTE respectively. The reappearance of teaching students with special education needs (SEN) and teaching in multicultural settings as the least commonly taken option in 2014-2015, and perception as needed CPD in 2016-2017 is critical. These results align with TALIS records (Backhoff & Pérez-Morán, 2015; OECD, 2019). Therefore, arguably, decision makers might not have considered CPD in these areas as essential, and this can be confirmed by existing information about the courses requested by the federal education authority to CPD providers in late 2017 (SEP, 2017d, 2017b).

Backhoff and Pérez-Morán (2015) maintain that teachers' CPD needs concerning teaching in multicultural settings might relate to the teachers' awareness of the plurilingual context.

Nevertheless, survey data showed that the occurrence of indigenous backgrounds across various primary education provision types might be the reason for these findings. However, CPD on these subjects was not current among interviewees, again, potentially because that was not the priority placed during the years following 2015-MTE. Nevertheless, teachers might identify certain CPD as needed, but decide not to join, which invites to future lines of research on why that might happen. Since NQT and teachers promoted via MTE asserted the need for numerous CPD-subjects, either these participants did not feel prepared for the upcoming responsibilities, were more conscious of their professional development (Guskey, 2002; Hustler et al., 2003), or the evaluation was unable to identify suitability at the hiring stage (OECD, 2005; Steinberg & Sartain, 2015). Therefore, these findings have direct implications regarding induction programmes, tailored CPD for these educators, and the review of the MTE procedures.

### *8.6.2 Formal individual-oriented CPD opportunities in 2016-2017*

Although about half of MTE participants took CPD in 2016-2017, which was proportionally lower than in 2014-2015 (77%), only nine MTE participants in this sample received an *insufficient/non-proficient* result, showing, therefore, their interest in CPD. The lower participation rate might relate to teachers ceasing participation in CPD once an approbatory result in MTE was achieved, as well as other deterrents tackled in section 8.6.5. Nevertheless, interview findings suggested that *formal* CPD opportunities were scarce in 2016-2017, which is in accordance with documental records (Cordero et al., 2017). However, as a minimum, all the interviewees had access to training after MTE in a variety of areas; for instance, concerning technology for teaching and learning, content knowledge, human development courses, and others related to MTE procedures. This is the contrary to 2014-2015, when content knowledge CPD was prominent.

The rationales which the interviewed MTE participants gave to join CPD will now be discussed. Firstly, all interviewees agreed on CPD after MTE as a means to improve their performance and the education system as an extension, which resonates with doing a better job, and for satisfaction (Guskey, 2002). Moreover, these cases might resemble instances of *performativity* (Ball, 2003), that is, the inner need for keeping up-to-date to get closer to the standards of suitability. Secondly, the views of four teachers and the headteacher regarding CPD to gain knowledge in preparation for subsequent assessments might relate to previous experiences with TES (Timperley et al., 2007), especially with those that led to rewards. In such cases, practice improvement and change seem less likely to happen when the reasons to take further training are unrelated to the development of teaching and the students (Guskey, 2002; Timperley, 2011).

Therefore, regaining the original sense of CPD following MTE seems paramount to avoid teacher training turning into preparation for assessments rather than to improve their practice (Ramírez & Torres, 2016, p. 20). In other words, the potential risk is that 'instead of evaluating what was learned and done, [teachers] learn and do what is evaluated' (Gil, 2018a, p. 312). Although only visible in a few quotes, joining CPD to do well in assessments disrupts the developmental nature of CPD (Mitchell, 2013; Timperley et al., 2007), and adds knowledge to current rationales for taking further CPD in the context of TES (Guskey, 2002). However, there were some examples of genuine interest in CPD for personal improvement; for instance, the two teachers who were motivated to tackle CPD according to the feedback report, and the other four who sought *formal CPD* to address self-perceived development needs. Nevertheless, where available, CPD continued to be presented in an 'Argos' catalogue fashion' (Mitchell, 2013), but one that is out of stock. Therefore, MTE's intentions to improve the quality of teaching and education might be misrepresented in the absence of suitable options for the teachers' enhancement.

### 8.6.3 A contrast of old and new formal CPD formats after MTE

Insight from interviewees showed that, similar to *formal* CPD formats before 2015-MTE, workshops and diploma courses were prominent methods of teacher training in 2016-2017, and such arrangements would continue in the upcoming years (SEP, 2017a). Nevertheless, apart from the already argued short-term nature, there were examples in this research showing the little opportunity for following-up with teachers, which makes these CPD formats a less effective method for teacher development (DFAT, 2015; Harris & Sass, 2011; Ingvarson et al., 2005; Kennedy, 2016; Naylor & Sayed, 2014). Therefore, in this part of the policy, MTE might not represent a profound reform, but to some extent, a continuation of former policies that have been portrayed as less appropriate for teacher improvement.

Two new CPD formats arising with MTE were expected to enhance teaching via mentoring and requesting teachers to develop research within the school as part of their *formal individual-oriented* CPD. Unsurprisingly, in 2014-2015 only 4.6% ( $n=17$ ) of the surveyed participants participated in mentoring-coaching activities, and the low frequency might be because these CPD formats did not typically exist in the Mexican education system (Backhoff & Pérez-Morán, 2015). In 2016-2017, this situation was not much different. Findings from interviews showed that mentoring posts were not attractive, and hence faced difficulties with allocating each NQT with a mentor (DIE-CINVESTAV, 2017). Teacher mentoring is a promising way to enhance the teachers' knowledge base, as documented in various contexts (Bolam et al., 2005; Darling-Hammond & Wei, 2009; Mitchell, 2013; Sayed & Ahmed, 2015b; Wang, 2015). However, its introduction in Mexico by decree seems to have neglected the existing capacity. The introduction of research within the school is discussed in section 8.7.3.

#### 8.6.4 *Changes regarding CPD provision after MTE*

While the survey data from 2014-2015 showed that the state was the most prominent CPD provider, and continued to be during 2016-2017, there were some changes worth discussing. For instance, according to interview data, not only was *formal* CPD more challenging to find, but when available, it was provided by third parties and not directly by the state, for example, in teacher centres. Although this transition towards an outsourcing model originated way before MTE (Cordero Arroyo et al., 2015; Cordero et al., 2017), this research, in line with recent literature, suggests this situation became prominent with the reform of 2013 (Cordero et al., 2017; Poy, 2016; SEP, 2017d).

Therefore, although some CPD continued free of charge, more public funds were transferred to non-profit and for-profit private interests, e.g. the teachers' union, and public and private universities. The continuing abandonment of state-run institutions may, at some point, disqualify them in matters of ongoing teacher training, and there are examples in Latin-America. Parra et al. (forthcoming) analyse the situation in Chile where voucher policy, inspired by Milton Friedman's ideas, place the only remaining teacher training college in that country (UMCE) at risk of closure, given their limited potential to attract students and talented staff to their programmes. Therefore, after MTE, the state might have acted as a manager, rather than as a CPD provider. However, it was less clear, given the scope of this research, whether this move constitutes a conscious or unconscious shift towards a different way of *formal CPD* provision.

#### 8.6.5 *Deterrents on participation in formal CPD after MTE*

While qualitative insight indicates that CPD might have been less available in 2016-2017, survey data suggest that poor communication of teacher training on offer might have misled some participants. For instance, *I was unaware of where to find these options* was the prime reason



teachers chose with regards to deterrents to participation in CPD after MTE. Considering that online learning became prominent following 2015-MTE, it is plausible that decision makers wanted to disseminate information about teacher training via the internet. However, this approach might not be the most appropriate because of the various downsides already discussed regarding the use of online means without consideration of current knowledge and skills among teachers (see section 2.7.2). Furthermore, teachers who might have found training advertised online argued *CPD clashes with my work schedule* as another significant deterrent, in line with findings from a TALIS-Mexico report (Backhoff & Pérez-Morán, 2015).

The two rationales have implications for policymakers. For instance, current communication strategies of the official CPD catalogues could be disseminated by the headteacher and printed invitations, as these seem more appropriate in this context. Similarly, the state could accommodate teacher training spaces at the workplace to ensure that schedules do not overlap with the teachers' duties. Further recommendations are provided towards the end of this thesis.

Another reason why teachers seem distant from CPD is due to the lack of incentives to participate. For two teachers, the absence of economic rewards for engaging in CPD, and as a means for salary improvement like in the former Carrera Magisterial programme, was demotivating. Therefore, decision makers have a difficult task to incentivise teachers to take part in CPD for the sake of development and not for gaining economic praise. These ideas contrast with a recurring willingness to participate in further training, despite the *teachers' duties at home*, which was among some of the least common reasons for deterring teachers from participating in CPD, as shown in similar research (Backhoff & Pérez-Morán, 2015). In sum, even though nearly half of the MTE participants did not take CPD after the evaluation, there is a willingness to take part and the original findings

from this research present decision makers with some suggestions to overcome current deterrents.

#### 8.6.6 *Informal CPD after MTE*

Among the research participants, there seems to be a continuation of how they used *informal* CPD methods for enhancement. Before MTE, self-learning (online) and consulting academic research were prominent. Similarly, after MTE, the teachers see CPD alongside *formal* provision as helping them to stay updated online. However, the insight from a teacher revealed that consulting literature related to MTE might also be of interest to the teachers after the evaluation. These findings show once more the complex mind of teachers, and how CPD is taken in different manners to fulfil various purposes (Timperley et al., 2007; Yoon et al., 2007). That is, while some of them participated in *informal* CPD to enhance their practice, others might seek to achieve an expected standard of quality which appears external to them, such as that represented in MTE (Ball, 2003; Guskey, 2002; Naylor & Sayed, 2014; Timperley et al., 2007).

Not surprisingly, 43% ( $n=30$ ) of MTE participants continued in a teacher study group after the evaluation, plausibly to be prepared for the following assessments, which would take place at least every four years (DOF, 2013a; Ramírez & Torres, 2016). Therefore, decision makers should consider that teachers not only fear losing their jobs, but also see MTE as a means for achieving rewards. Neglecting these rationales might confuse teacher-led training as being scholarly spaces or communities of practice (CP) which are focused solely on the enhancement of teaching. This is primarily because the *passion* for improving practice, to which Wenger & Synder (2000) referred to when defined CP, might not be shared by all members. The next section discusses further the identified similarities and differences between participation in CPD before and after MTE.

## 8.7 A comparison between CPD before and after MTE regarding impact, pertinence and quality

This section critically addresses findings regarding research question 3b:

RQ3b: How does CPD in 2016-2017 compare to CPD before 2015-MTE regarding impact, pertinence, and quality?

### 8.7.1 Impact of CPD after MTE in 2016-2017

Although the perceived effects of CPD after MTE were not explored via survey data, the insight given in the interviews provides substantial information to contrast with training before the evaluation. While the content knowledge CPD in 2014-2015 was frequent and was perceived as the most impactful on the teachers' practice, after MTE, possibly because of liberalisation of the offer, the perceptions of impact concentrated on a different set of courses and outcomes. In the view of policymakers, it is the pupils' parents who see a value in the new induction programmes given to NQT following an assessment in MTE. These views are in line with similar experiences on the positive impact of induction schemes (Collinson et al., 2009; Jensen et al., 2016; Stoll et al., 2006; Walter & Briggs, 2012). Therefore, the integration of mentoring programmes for NQT may not only positively impact on indicators of educational quality, but to gain the trust and support of the students' parents and thus, should be reinforced in future TES.

Teachers see the impact of CPD after MTE on the students' behaviour and attitudes. These perceptions were not located amongst their experiences with CPD before MTE, plausibly because of the less commonly available teacher training in areas related to teacher development and wellbeing. However, as noted, these are CPD-subject areas not typically encountered in *formal* CPD

catalogues (Bubb & Earley, 2008; DFE, 2016; Mitchell, 2013), but offered privately. In this regard, a difference between perceived impact before and after MTE relates to the teachers' increased awareness of the CPD options that may bring about changes in their teaching environment, despite, as mentioned, it maybe being at their cost.

### *8.7.2 The pertinence of CPD delivery modes after MTE*

Another meaningful change after MTE regarding CPD provision is the prevalence of online or distance learning, which lies amidst competing views of it as a suitable manner for teachers to update their work (Yates, 2014). For instance, positive views concentrate on the advantages of training at a distance and the teachers' own pace. However, one interviewee expressed that these methods do not have sufficient credibility to be considered as CPD, as noted in similar research (Hustler et al., 2003). A perception that the internet is useful when needed, but not as a form of ongoing development, may contribute to its partial use. Notably, teachers are provided CPD via the internet, but how to use the internet for development has not been appropriately addressed in the current CPD on offer. This is an area of opportunity that could be tackled in the post-MTE era.

Arguably, full-time teachers and those located in remote areas with access to the internet might prefer and be more engaged with this CPD delivery mode. However, this is not the case for all teachers in Mexico. Therefore, it might be more appropriate to address the array of professional needs via various methods, and not via online learning alone.

### *8.7.3 Quality*

After MTE, interview participants who took CPD asserted the good quality of training available, mainly the preparation of facilitators, in the case of a master's degree, and the positive impact that

a human development course had had on the teachers' students. Notably, the few options interview participants took in 2016-2017 reiterate their preference for practical, problem-solving CPD, precisely because this is the training that supports their duties in schools (Guskey, 2002; Hattie & Timperley, 2007; Timperley, 2011). However, after MTE, some instances of perceived quality of CPD related to non-academic areas were noticed. Although there are few examples to support this perspective on the quality of CPD after MTE, these positive views are about CPD found on the market and not *formal* CPD following the evaluation. This issue deserves the attention of those in charge of developing CPD alternatives.

While in 2014-2015 only 7% ( $n=26$ ) of surveyed participants mentioned having participated in individual or groups education research, plausibly because of the uncommon use of this format in Mexico, the new CPD providers would be required to integrate some evidence of the teachers' application of knowledge and skills (SEP, 2017e, 2017b). According to Guskey (2013, 2016), collecting such data is essential to assess the extent of the impact CPD has on teachers' practice. The move from no evaluation whatsoever and written or oral examinations after participation in CPD to an evidence-based model is commendable. Nevertheless, there is not enough data from this research to assert, or otherwise deny, the application of these new developments and the quality of CPD thereafter. The four teachers who provided insight into how they were being evaluated in their CPD showed that the form continues as before MTE, mainly via written and oral examinations. Therefore, further research is needed in this respect.

Finally, as a policy intended to improve education quality, MTE does not count on indicators of impact. Instead, a series of anecdotal examples of the effects of MTE on the teachers and the students illustrate the limited data policymakers count on to evaluate this policy. Therefore, research evidence suggested that MTE might need appropriate tools to examine teacher

performance comprehensively, benchmark progress, and effectively improve the quality of education.

## 8.8 Conclusions of this discussion Chapter

### 8.8.1 Concluding statements regarding research question 1 and sub-questions

In 2014-2015, most surveyed participants declared having previous access to various *formal individual-oriented, workplace, and informal* CPD. The most common options were rated to a large extent, as having a moderate/large impact on the teachers' practice. Also, CPD in 2014-2015 was consistent in many respects with available records, such as a TALIS-Mexico report (Backhoff & Pérez-Morán, 2015). The evidence suggests that before 2015-MTE, *formal* CPD focused on academic areas of professional development, potentially to contribute to the improvement of quality education as measured in students' assessments. It was argued that such CPD was already in place before 2015-MTE, which suggests that MTE was introduced without a CPD component in the traditional teacher training areas. Similarly, regarding workplace CPD, superintended and TPA might not be prepared to undertake classroom observations and be considered impactful on the practice. Therefore, it would be expected that MTE updated insight into the teachers' CPD needs via a systematic assessment of the teachers' performance.

Teachers' experiences with quality CPD before 2015-MTE consistently refer to the possibility of having a degree of agency on what to learn and when. In that sense, the use of online mediums for *formal* and *informal* teacher CPD seems viable according to this research and might be considered as a delivery mode following MTE. Nevertheless, training on the matter during ITE and once in the service should be considered so that new CPD is in line with the teachers' knowledge and skills in the use of computers and the internet. This research revealed the teachers'

rationales to participate in CPD and study groups concerning MTE and suggests that teachers joined further training not only to avoid low marks in the evaluation but to be able to gain rewards and promotions. This research provides unique knowledge concerning the differences in the extent of participation and perceived impact of *formal* and *informal* CPD on the teachers' practice according to the professional experience of teachers. Overall, it is argued that CPD in 2014-2015 did not consider such differences, and a one-size-fits-all method of training was the standard.

### *8.8.2 Concluding statements regarding research question 2*

Regarding the strengths of MTE, this research presented new information about the perceived suitability of the new TES for teacher hiring and promotion. As noted, MTE was recognised as a better framework to regulate the workforce than the joint committees. The inclusion of a feedback report in MTE is a strength that nonetheless was considered as informative by approximately half of the surveyed MTE participants. However, the issuing of formative feedback for teachers could arguably support the work of decision makers regarding further CPD opportunities. The enhancement of teachers' status because of MTE was contested considering a lack of teacher certifications before joining the workforce. Nevertheless, a lack of consideration of the role of the state in matters of ITE at normal schools has been discussed.

The array of weaknesses of MTE identified in this research arguably reflect the lack of consultation among those approached by this research, e.g. teachers, headteachers, and policymakers. A potential unequal opportunity to succeed in MTE was raised. The two main reasons discussed were ignoring the procedures of the new TES and, in some cases, a lack of previous knowledge of computers and the internet. It was also learned in this Chapter that in the absence of classroom observations and other contextual aspects of the teachers' work, MTE might not be tackling teachers' performance comprehensively. The standard presentation of the feedback report was

critiqued, and its limitations to inform individual teachers and those in charge of developing further CPD were also highlighted. These issues are tightly related to a lack of follow-up and allocation to relevant CPD after the assessments. Developing a TES that targets teachers according to professional experience was argued as being a problematic task; although, defining teacher career thresholds might be a viable first step. Opacity in the allocation of the budget and teachers to schools following the MTE outcomes were noted as downsides of the new TES.

The unintended consequences revealed new information regarding concerns towards the teachers' wellbeing before, during and after MTE. However, it was noted that the evaluation might have incited teachers to be more prepared for the assessment via preparatory courses. In this regard, most likely, it was not expected that the teachers' union restored a close relationship with the government as it did via the new teacher training organisation they created. Arguably, such a *new alliance*, as it was named in this research, compromises the roles of government and union as discussed previously. The teachers' results in MTE seemed central, which might have led to cheating in the evaluations. Relatedly, there is a sense of disappointment with years of experience and certificates of participation in CPD not being considered as part of the assessments. Therefore, it was suggested that future TES separate the formative and summative components, and CPD is not linked to rewards. Finally, narrowing the gaps between more and less developed communities based on the allocation of suitable teachers where they are most needed, does not seem to have been anticipated in MTE, given the opportunity to choose where to work according to performance in the TES.

### *8.8.3 Concluding statements regarding research question 3 and sub-questions*

This discussion located the areas of teacher CPD that decision makers have most likely prioritised before and after MTE. In that sense, this research maintains that the teachers' CPD needs in 2016-



2017 correspond to the training least taken in 2014-2015. Mainly how to teach SEN students and how to work in multicultural settings. However, it is not discarded that CPD in these areas was indeed available, but teachers decided not to take it, which requires further investigation. The greater concern for undertaking CPD after MTE among NQT and promoted teachers via the assessments might relate to individuals' rationales, but also to MTE being less able to identify unsuitability at the hiring stage. Participation in CPD in 2016-2017 among MTE participants was lower than the survey data from 2014-2015. Nevertheless, these findings may relate to a lower interest in training once passing the evaluations. It may also lead to a reduction in formal provision and the non-mandatory CPD for *sufficient* or above and *proficient* categories. The preferences for CPD-subjects was more varied in 2016-2017, but it was found that continuation in training about MTE procedures might be a form of preparation for subsequent evaluations.

There are no substantial differences in the CPD formats experienced by interview teachers in 2016-2017 as compared to before 2015-MTE. For instance, workshops and diploma courses were prominent; however, the introduction of mentoring and research within the school, according to this research, might not have been as successful as expected. Nevertheless, it is more evident that the for-profit and not-for-profit sectors have gained prominence as CPD providers after MTE. However, dissemination of CPD opportunities in 2016-2017 has not reached all the teachers as discussed in the light of survey evidence. This situation might relate to the predominance of online learning in the years following 2015-MTE. Also, similar to previous research, CPD might continue clashing with teachers' schedules. Critically, CPD after MTE must combat a perception that participating in training should lead to salary enticement to recover the developmental side of in-service teacher training.

Relatedly, the use of the internet as an *informal* means for development remains limited in the scope it is used. This issue might relate to the lack of appropriate training during their ITE and while working in schools. After MTE, the CPD areas and perceived effects of in-service training, differently from 2014-2015, include aspects such as the perceptions of pupils' parents and teachers of students' learning and behaviour. Regarding the quality of CPD, interview participants suggested that the training that boosts their practical skills is highly valued. There is no data in this research to evaluate the quality of CPD following the introduction of research within the school procedures. This discussion concludes by suggesting that MTE did not include the indicators of the expected impact given the limited information found across research participants, mainly policymakers. Therefore, future TES should consider benchmarking progress and take the multiple-layered nature of the educational phenomena posited in this research into consideration. The next Chapter presents the conclusions and recommendations for policy, practice, and future research.

## 9 Conclusions

In February 2013, the Mexican government passed an education reform aiming at improving the quality of education in this country. MTE was central to this purpose and was endorsed by the main political parties at the Federal Congress. However, this TES was enacted and introduced without consulting education actors, such as teachers and headteachers. Several demonstrations and some casualties followed the implementation of MTE in various places of Mexico's territory. The local and international literature suggests that the teachers' and other stakeholders' perspectives about TES and CPD for teacher practice improvement is a knowledge gap that might shed light on better approaches to quality education improvement (Echávarri & Peraza, 2017; Flores, 2011; Goe et al., 2014; Ramírez & Torres, 2016; Tornero & Taut, 2010; Tuytens & Devos, 2009). This research has addressed some of those unexplored perspectives and provided new insight into TES and its implications for teacher CPD in line with the aim of this study:

**Aim:** To investigate Mexican teachers', headteachers', and policymakers' perceptions of the strengths, weaknesses, and unintended consequences of MTE. Also, to compare CPD before and after MTE and examine whether the teacher evaluation and feedback report can inform subsequent CPD routes to enhance teachers' knowledge and pedagogical skills for quality education improvement.

A summary of this research's findings is presented by responding to each research question and sub-questions, drawing on evidence from a teacher survey ( $n=367$ ) and thirteen interviews with teachers evaluated in 2015 and 2016, as well as policymakers. This evidence provides an original contribution to the literature. However, as mentioned, the generalisation of findings was not sought, and the inferences drawn from the data are tentative, given the limitations of this research.

After the summary of results, the scholarly contribution of this investigation to the existing literature, policy and practice is further developed via a series of recommendations. The learning acquired, as well as limitations of this piece of research, are explained. Recent policy changes related to this PhD research are summarised, and detailed recommendations for future research are put forward.

## 9.1 A summary of the contribution of this research

RQ1: What were the opportunities (formal and informal) for CPD that teachers had before 2015-MTE?

This research found that before 2015-MTE, most surveyed participants participated in *formal* and *informal* CPD, mainly targeted to practice-oriented areas, such as academic content knowledge, student assessment and pedagogy of primary school. The evidence revealed that these CPD areas were already in place before MTE, and hence, most likely, such in-service teacher training was not introduced by the education reform of 2013. Still, CPD before 2015-MTE was in line with the purposes of the new TES, especially the improvement of indicators of quality education. This idea is plausible because, from a decision maker perspective, the academic areas with low students' results are teacher CPD areas that need attention (Barber & Mourshed, 2007; OECD, 2005; Schmelkes, 2018; SEP-SNTE, 2008). Therefore, MTE might have been chosen as a suitable approach to tackle other areas of professional development, academic and non-academic, that helped teachers enhance indicators of quality education.

This research also revealed that teachers' anticipation of the introduction of MTE in 2015 was influential among teachers to decide to join *formal* and *informal* CPD in preparation for the

evaluations. Nevertheless, in contrast to other studies on the topic, this investigation suggested that partaking in training about MTE procedures was not only related to the participants' concerns about being punished but also as a means to obtain knowledge that would allow them to gain promotions via the assessments. This is a new contribution to the existing literature (Guskey, 2002; Timperley et al., 2007; Yoon et al., 2007), which extends the previously reported rationales of why teachers decide on joining CPD in the context of high-stakes consequences evaluations.

**RQ1a: What do teachers say about the impact of CPD before 2015-MTE on their practice, its pertinence and quality?**

This research revealed that most surveyed participants expressed positive views about the impact of CPD they took before 2015-MTE on their practice. Furthermore, these views were typically in line with the most common *formal* and *informal* CPD opportunities offered in Mexico, most of which were oriented to practice. In other words, it is plausible that decision makers prioritised practice-oriented CPD. Moreover, teachers might willingly take the training that enhances their content knowledge, potentially as a means to gain rewards and improve indicators of students' outcomes. See examples of previous TES in Mexico in section 2.4.

Notably, in 2014-2015, in-person (face-to-face) modes of teacher development were the most common and perceived as pertinent. These findings correspond with a more extensive provision of *formal* CPD at teacher centres and other state-funded institutions. Nevertheless, although less common as a *formal* CPD method, online training materials and courses were perceived pertinent for learning and development. These views were also shared by those experiencing internet-mediated professional development as *informal* CPD. Therefore, although current knowledge indicates that Mexican teachers were not trained on the use of computers and the internet for

teaching and learning during their ITE (Rodríguez & Veytia, 2017), this investigation showed that online learning might be a viable form for teacher CPD.

No other research in Mexico had tackled the teachers' perspectives regarding quality CPD before 2015-MTE, which is essential knowledge to place MTE in context and understand its impact on professional practice. In this study, surveyed participants described quality CPD as one that is taught by knowledgeable facilitators, but also that allows a degree of agency. Similarly, they refer to the use of technology as part of good quality CPD, but when it provides feedback and follow-up on the teachers' learning processes. Nevertheless, in 2014-2015, most teachers who took one-off courses were not followed-up afterwards, which might prevent decision makers from knowing the extent of the effectiveness of the training provided (Guskey, 2016; Ingvarson et al., 2005). Therefore, this research critiqued the lack of records on the aftermath of teachers' take-up in CPD, an essential gap in local research (Cordero et al., 2013; Tejedor, 2012), and argued that decision makers might be missing the opportunity to offer CPD in the most needed areas, especially in the context of TES.

**RQ1b: Did the extent of participation and perceptions of how CPD impacts on their practice vary according to teachers' experience?**

New knowledge regarding differences in the extent of participation in CPD before 2015-MTE and the perceived impact on the practice according to the teachers' professional experience was found. For example, teachers of less than five years of experience, those in their mid-career, and the most experienced (36+ years) participated and perceived the impact of *formal individual-oriented* CPD differently. Notably, the least experienced educators seem to report the positive impact of CPD about content knowledge more than teachers in the other professional experience ranges.

Regarding *formal* workplace CPD, the least experienced teachers saw less impact on the practice opposite to more senior teachers, thereby showing very distinctive perspectives concerning *individual-oriented vs collaborative* forms of CPD. These findings have implications for decision makers who could support the least experienced educators to enhance their content knowledge as well as involve these teachers in collaborative types of professional development.

No significant associations were found between the extent of participation in *informal* CPD and teaching experience. Nevertheless, the pattern of the findings tentatively suggests, again, that the least experienced teachers tend to prefer more *individual-oriented* CPD. Mid-career teachers seek options that might free them from planning and developing materials, such as using commercial bibliographies. The most senior teachers found more impact on the practice when the *informal* CPD involved working with other teachers. Despite the differences, *formal* CPD was typically offered in a one-size-fits-all format before 2015-MTE, and this research argued that such an approach might not target professional development needs effectively for teachers with different years of experience. Still, there is no evidence in this research about a radical change in the way CPD is provided to teachers following the reform of 2013, as is further summarised below.

In summary, before 2015-MTE, most surveyed teachers joined *formal* as well as *informal* CPD opportunities and perceived these training options as impactful on their practice. They also took training related to MTE procedures, which arguably was done to avoid dismissal, but also to be promoted. Face-to-face CPD was prominent in 2014-2015, but there is evidence to believe that online courses and materials are suitable as a medium for teacher CPD. Teachers expected to be followed-up after taking CPD; however, this seems lacking in the provisions before 2015-MTE. This research found that the teachers' experience matters with regard to the CPD that they might need; however, the evidence suggests that before 2015-MTE, teacher training followed a one-size-fits-

all approach. Therefore, decision makers could consider these downsides to offer relevant CPD during the MTE era.

**RQ2: What are the strengths, weaknesses, and unintended consequences of 2015 & 2016 MTE in informing further CPD decisions and improving teacher performance?**

Regarding the strengths of the new TES, this research showed that for teacher hiring and career promotions via the assessments, MTE was perceived as a better approach than previous discretionary methods. Similarly, the incorporation of formative components to the TES, such as a feedback report, and CPD to improve areas of underperformance were commended by interview participants. These positive views about MTE contrast with published research at the beginning of this PhD project reporting more negative views (Arnaut, 2014; Pérez Ruiz, 2014; Poy, 2016), and although small-scale, this research showed a more balanced perception of the implications of the new TES for the teachers' job. The perceived enhancement of the professional status of teachers via MTE might relate to a lack of teaching certifications in Mexico, e.g. NQT in other contexts; nevertheless, these views were contested. Mainly, this research argued that decision makers should look at the current state of affairs about teachers' ITE, including recruitment to normal schools, among other aspects. The identified weaknesses of MTE contribute new knowledge regarding an unequal distribution of the information needed to sit the assessments across Mexico because preparation for the evaluation varied from place to place. Likewise, it was found that the participants might have possessed different degrees of knowledge of computers and the internet, which were critical skills to sit MTE.

Moreover, regarding mode and content of assessment, MTE lacked a classroom observation component and focused the evaluations on the individual teacher, but not the broader school



environment, which was critiqued drawing on the existing knowledge from EER (Creemers & Kyriakides, 2006; Reynolds et al., 2012, 2014). This research gathered evidence showing that the feedback reports were not sufficiently informative for further development for nearly half of MTE participants, and this is related to a weak link with *formal* CPD. Furthermore, research participants' views on the lack of taking into account teaching experience as part of MTE was discussed in the light of current contending knowledge on the effectiveness of teachers as years in-service accumulate (Chingos & Peterson, 2011; Clinton & Dawson, 2018; Clotfelter et al., 2007; Croninger et al., 2007; Sandoval-Hernandez et al., 2015).

This research also showed two issues regarding transparency in MTE, namely the use of authorised budget for the TES, and the continuation of discretionary procedures to allocate teachers. Furthermore, the downsides have implications for those in charge of enforcing and guaranteeing the suitability of TES to capture teacher performance and distribute teachers to schools fairly.

Regarding the unintended consequences of MTE, this research garnered new knowledge concerning the negative impact on the teacher's wellbeing at different stages of implementation of the TES. This is critical knowledge that can be used by decision makers regarding future TES, as well as for future research. The evidence showed that MTE spurred teachers to seek instruction on the procedures of the evaluations before these were implemented. This might be seen as an unexpected positive effect of the TES (OREALC/UNESCO, 2016). Nevertheless, it was argued that the motivations of participants in this training might not necessarily lead to the improvement of the teaching practice. For instance, two teachers who were in close contact with cases of cheating mentioned this might be happening as a method to succeed in the TES. Still, in-depth investigation is needed to know more about this matter.

The reappearance of the teachers' union, especially in supporting informal teacher groups to study MTE assessment requirements was not envisaged as part of the new TES. Although based on this study and previous evidence, it can be asserted that the overall power of the teachers' union was reduced by the reform, teacher union support for CPD increased. This unintended effect of MTE put the union in a central aspect of educational policy as also demonstrated by other research with data about money transfers for their services (Poy, 2016). Finally, it was noted that the procedures chosen to allot teachers according to their results in MTE might not be a suitable method to provide the least developed communities with good quality teachers (Gil, 2018a), the latter being within the boundaries of MTE.

In brief, the strengths of MTE concentrated on the possibilities it offered for hiring and promotion without the mediation of the teachers' union. Also, in its *formative* components, such as the feedback report and CPD. Among the identified weaknesses of MTE, an unequal opportunity to know about the procedures of the evaluation, a perception of MTE as incomplete in the absence of classroom observations, and targeted issues with the feedback report and further CPD were found. The potential need for a differentiated evaluation for teachers at different stages of their career was also uncovered. A lack of transparency in the use of the budget for MTE, and the allocation of teachers according to their results in the assessments were revealed. Regarding the unintended consequences of MTE, there is evidence that shows negative impacts on the teachers' wellbeing at different points of implementation of the new TES. Furthermore, MTE might have motivated teachers to join study groups and other *formal* and *informal* CPD, which was problematised. This research showed the involvement of the teachers' union in matters of teacher CPD, which plausibly was unintended in MTE. Finally, this research gathered evidence from a policymaker that suggests MTE might not be tackling the unequal distribution of teachers to schools since the best results in the evaluations are allowed to choose where to work.

### RQ3: What CPD options did MTE participants need and take after the evaluation, particularly in 2016-2017?

This research presented new insight into the perspectives of a subset of teachers' evaluated via MTE and their CPD take-up before and after MTE that is not available in other research. Survey findings showed that the least taken *formal individual-oriented* CPD areas in 2014-2015 were those considered needed in 2016-2017. Still, these results were discussed under various potential rationales. While the positive impact on the practice of most common *formal individual-oriented* CPD in 2014-2015 might have had a long-lasting effect, and hence reduced need in 2016-2017, other areas such as teaching SEN students or working in multicultural settings continued to be less typically offered. Yet, such CPD opportunities might be in place, and despite being considered professional development needs, teachers might not take them. The reasons related to the last point may be the priority given to CPD that facilitates the practice and potentially helps to improve the students' measurable outcomes, as this research argues. Still, the quality of CPD about teaching SEN students and working in multicultural settings might not fulfil the expectation of teachers, suggesting the little participation reported before 2015-MTE. The study found a larger perceived need of CPD following MTE among NQT and promoted participants, in comparison to other MTE evaluated teachers; this suggests more interest in CPD. However, it was also argued that not being ready for the job is plausible and that MTE might not be able to tackle this issue at the hiring stage. These are novel rationales that have implications for those developing future TES in Mexico who could tackle professional development needs targeted to these groups of educators.

A key finding from the survey is that overall MTE participants were proportionally less engaged in CPD after the evaluation than before it. Nevertheless, given the small number of participants with results that forced them to take CPD mandatorily, it was maintained that most of these teachers

were willing to take further CPD voluntarily. This interest was typically related to practice improvement purposes, but also as a method of preparation for future evaluations. These views on additional CPD were split between those who sought training in line with the feedback report and those who did it based on self-perceived professional development needs. In any case, data from interviews showed that *formal CPD* tailored to either the identified areas for improvement in MTE or the self-identified CPD needs was not available. Hence, the training options offered were in some cases unrelated to those needs. In that sense, MTE has a critical downside because an appropriate link with CPD following the assessments was not secured. Again, these findings should encourage decision makers to instruct the necessary changes to make suitable needed CPD available to teachers.

This research showed that there are substantial changes to *formal CPD* available to teachers following MTE. First, it was noted that online provision became prominent. Moreover, diversification in the providers of CPD, mostly the dominance of public-private providers and those entirely for-profit advanced a new landscape in matters of teachers' development working in the state-funded sector. Although mentoring and research within the school were expected to be introduced with MTE, these seemed not established at the time of data collection given their low take-up among MTE participants in this research. Both methods are, according to academic insight, very productive ways for the teachers' development (Akiba & Liang, 2016; Bolam et al., 2005; Darling-Hammond & Wei, 2009; Sayed & Ahmed, 2015b; Wang, 2015). Hence, decision makers could prioritise these in the upcoming years. Tailored training would be needed, nonetheless, to secure the wellbeing of mentees and those who are targeted for research. For example, ethical considerations when conducting research should be clear to teachers to safeguard the welfare of pupils and the broader community. Also, learning to produce knowledge systematically might require changes to ITE. These important matters can be explored in future research as well.

### RQ3a: Did perceptions of CPD needs after MTE vary according to teaching experience?

A key contribution of this research is the evidence showing the necessity for CPD provision according to the teachers' careers. Among MTE participants, the least and most experienced teachers were comparatively more interested in CPD about working with SEN pupils than teachers in other experience ranges. Moreover, findings in this matter revealed that the least experienced teachers might be in more need of CPD that tackles their content knowledge and equips them with student behavioural management skills. Therefore, this research provides decision makers with evidence about areas of ITE that could potentially be enhanced. Similarly, given the different extents of mastery of teaching across professional experiences, it would be appropriate to develop professional development spaces where novice and older teachers can supportively share knowledge.

Nevertheless, it was previously noted that the least experienced participants tend to prefer *individual-oriented* forms of CPD, contrary to most experienced educators who see value in *collaborative* CPD. In that sense, work should be undertaken to bring these different professional experiences into communication, so that knowledge of the practice becomes a common interest. In this regard, the role of school leaders is paramount. Further recommendations about these latter points are provided in section 9.2.3.

### RQ3b: How does CPD in 2016-2017 compare to CPD before 2015-MTE regarding impact, pertinence, and quality?

Perceptions of impact were found in two manners. Qualitative insight from a policymaker suggested that induction schemes for NQT are seen as positive by pupils' parents. Teachers see the impact of CPD after MTE on their students' attitudes. It was argued that training provided to novice teachers should be maintained and strengthened, given the apparent reported support from students' parents. Also, that after MTE, teachers might see an impact of CPD on their pupils because training before MTE might not have been as diverse as it seems to have been after the evaluations. Nevertheless, the fact that in 2016-2017 public-private and for-profit CPD providers were typically more common also contributed to a liberalised offer. However, in some cases, it represented a financial burden to the teachers. These financial costs should be considered and addressed accordingly, mainly in a context where the state is responsible for the continuing professional development of the teachers.

In terms of the pertinence of CPD in 2016-2017, the evidence indicates that online CPD provision became prominent during the MTE era, and this is consonant with the local literature (Cordero et al., 2017). Still, this research suggests that this transition was not considerate of current capacity among teachers. Therefore, decision makers might need to focus on the actual skills of the educators to learn about using the internet, as well as how they can use these means to produce knowledge and teach with them. All these aspects seem to be taken for granted, which might not serve the purpose of teaching improvement in the long run.

This research also shed new light on the perceptions of what constitutes quality CPD after MTE. As perceived by interviewees, these valuable aspects related to the excellent preparation of CPD providers and the benefit CPD brings to the human development of students. In 2016-2017, there were examples in the most traditional CPD areas, as well as non-academic training. This research denoted that most of these options were available to teachers via market-based providers.

Therefore, CPD provided directly by the state might not be fulfilling the expectations of teachers in the MTE era. Previously, it was shown that after MTE, a more intense outsourcing model of teacher CPD is occurring. With that in mind, although it can be argued that the teachers are receiving better service, it was also noted that progressively, the state might transfer its agency to decide on teacher CPD as it might be a concern of external entities. Nevertheless, strengthening control on education matters rather than devolving it was an aim of the reform of 2013 that seems counterintuitive by contracting out the teachers' CPD. These are matters concerned with the governance of an education system, which go beyond the scope of this PhD research, however, are put forward for future inquiry in section 9.5.

This research also argued that teacher CPD after MTE could be greatly benefited if research within the school CPD approaches were introduced in future *formal* CPD. In this regard, during the year explored (2016-2017), no evidence was found about its implementation yet. Still, similar to a point made previously, the introduction of these new CPD methods must be followed by appropriate training to teachers and other key actors in the education system to secure the best impact on teaching and learning.

In conclusion, this research found that after MTE (2016-2017), MTE participants stated that they needed CPD of a different kind to that mostly taken before 2015-MTE. Various reasons were explored. Another key finding was the larger perceived need for CPD among NQT and promoted teachers in MTE, which also might respond to multiple rationales. This research revealed a lack of relevant training in line with the teachers' feedback report or self-perceived needs in 2016-2017, which is a critical area for improvement in future TES. Furthermore, there is evidence regarding a notable increase in terms of CPD provided via online and with providers different from the state, as compared with CPD before 2015-MTE. Still, the new CPD methods proposed as part of the

education reform, i.e. mentoring and research within the school do not seem to be fully introduced up to the year explored in this part of the research (2016-2017) among MTE participants. Findings suggest a need for CPD that tackles teachers' development according to career stage, as well as the support of NQT who were found to be more individualistic, while senior teachers more collective in their processes and preferences for CPD. Although limited, this research's evidence suggests that induction schemes should be reinforced as a means to strengthen NQT knowledge and skills and gain support from the pupil's parents. Similarly, the evidence suggests that *formal* CPD offer should address multiple training needs, not necessarily targeted to content knowledge as it was mostly the case before 2015-MTE. The teachers' ICT skills might require particular attention. This research revealed a positive reaction to CPD available in the market; however, this situation was problematised in the context of increased participation of private CPD providers and the consequences it might represent for central provision in the future.

## 9.2 Recommendations for policy and practice

The following recommendations arise from direct evidence of this research and an ample review of the literature. These suggestions are organised into three broader areas: recommendations regarding future reform to TES, recommended changes concerning teacher preparation in Mexico, and suggested approaches to CPD after MTE.

### 9.2.1 Recommendations regarding future reform to TES

First, a review of the teaching profiles seems appropriate to determine the minimum and further thresholds that closely represent the expectations of teachers' work at different points in their vocations. These standards should characterise the minimum performance of pre-service teachers and the rest of the teacher career stages. The new teaching profiles should be transparent concerning both the recommended procedures to help those lagging and the support needed to



jump to the upper tier of expected performance. This is required to avoid uncritically matching the teachers' years of experience with proxies of quality teaching (Clinton & Dawson, 2018; Yoo, 2019).

Future TES could tackle issues of education quality more comprehensively; for example, integrating the contextual factors that might play a role in the teaching and learning processes (Creemers & Kyriakides, 2006; Reynolds et al., 2012, 2014). Similarly, the persistent material constraints of many schools in Mexico deserve prime attention. In this regard, the study of Sandoval Hernández (2009) revealed that 'for the Mexican basic education, contrary to the findings from developed countries, there is generalised empirical data pattern regarding the relationship between the school infrastructure and the students' attainment' (p.165). Therefore, in Mexico, allocating resources to the most disadvantaged first seems sensible. Although the education reform of 2013 included other policy programmes targeted at the school (see Appendix 2), documental data suggest that these initiatives were not enough to address the pressing needs of Mexican schools. In that line, TES must be able to differentiate school outcomes considering those potential differences between contexts.

This research suggests that *summative* and *formative* purposes of TES should be separated. This view of MTE concurs with previous literature that maintains that monitoring and development are two strands of teachers' assessments that may work better separately (Callahan & Sadeghi, 2015; Marzano, 2012; Popham, 1988). Therefore, future TES policy should consider using evaluations for specific purposes, such as certification or entry examination; nevertheless, assessments for teacher development should be followed by formative consequences only. This research suggests that classifying teachers in groups of performance possibly triggered more interest in getting a good result-category than in the developing components of MTE.

In addition, policy should be strengthened to ensure the lawful hiring and promotion of teachers. Allocating teachers to available positions should dispense with the participation of the teachers' union. The rightful appointment of teachers to vacancies should be secured throughout the process, from marking a teacher's performance until this teacher is assigned a position in the education system. One solution might be the implementation of peer-review processes in the 32 Mexican states, applied as follows. First, each state could mark the teachers' performance so that the contexts are better represented. After this, a team from at least one neighbour state proceeds to peer-review the reports and amends marks where appropriate. Subsequently, the teachers' lists arising from evaluations are validated by the parties involved in the marking and presented to the public to distribute to new entrants and promoted personnel via an open event for transparency. The education authority could encourage suitable teachers and promoted educators to choose underprivileged communities via differentiated salaries and access to postgraduate education, among other alternatives.

### *9.2.2 Recommended changes to teacher preparation processes in Mexico*

Teacher education should be reconsidered as a continuum that begins with pre-service preparation and lasts until retirement (Darling-Hammond, 2014; Nusche et al., 2014; OECD, 2005; Weinstein, 2015). Such a change in approach to ITE might require the following actions. First, ITE institutions should advance processes to recruit able students who possess appropriate content knowledge and aptitude to the profession so that during their pre-service education, they can develop further as excellent teachers. High-performing countries have implemented individual interviews to know the motivation of candidates to ITE (Darling-Hammond & Lieberman, 2013; Tan et al., 2017). Additionally, other procedures, such as pre-sessional courses and probationary periods, can be part of these changes. The feasibility of these changes will depend on the faculty of normal schools to

make uncompromised decisions. That is, the capacity to transparently integrate their student cohorts without the mediation of the teachers' union or the local education authorities.

Furthermore, ITE and teacher preparation once in the service should enable educators to participate more actively in the understanding and research of education policy. Similarly, as shown in this research, there is a need for training that equips student-teachers and in-service teachers with the necessary tools for learning and teaching using these new resources. This requirement is more real than ever amidst the pandemic of COVID-19, which impacted on education systems from all over the world, and caught many Mexican teachers unprepared for this transition to online teaching and learning.

### *9.2.3 Suggested approaches to CPD after MTE*

This research suggested it might be sensible to separate CPD from bonuses or salary increments to recover the developmental side of in-service teacher training. As noted, *gaming the system* and *fabrication* of acceptable performance is an issue not only of teacher assessments but can also happen concerning teacher CPD. Furthermore, recurrently in this research, teachers expressed the need for time to decide on their CPD. Together with an excellent initial and continuous teacher education, Mexican teachers could self-regulate their CPD if the time for these activities is provided.

The provision of CPD could consider a wide range of areas, and not just concerning content knowledge to tackle the chronic shortage of training in subjects such as how to teach SEN students and work in multicultural settings. This research showed that these are also recognised as the CPD needs of teachers following MTE. Furthermore, CPD should differentiate between potential needs according to teaching experience, as demonstrated in this research. Likewise, new approaches to

CPD could benefit from tackling knowledge development, and application of new skills in the practice to inform future teacher training opportunities. In that line, the follow-up of teachers after participation in CPD is necessary for future developments because this seems to have been absent in CPD provision before and during the MTE period studied.

Facilitate the use of mandatory school staff meetings for teacher professional development. Schools should be entitled to decide on the best approach to compulsory school staff meetings according to their needs. Currently, these gatherings are used for the planning and monitoring of a school development plan (SEP, 2014b, 2015b); however, this research showed that such spaces could be valuable settings for teacher enhancement. Nurturing teacher collaboration to tackle professional development pitfalls may eventually contribute to the enactment of PLCs; yet, in its current form, it is difficult to see intensive and monthly meetings evolving into committed collective modes of teacher development. Therefore, school leaders and their staff should have the freedom to choose how to utilise these gatherings, or otherwise, additional meetings should be planned that focus on promoting teachers collaborative, reflective enquiry. To ensure the productive use of intensive and monthly staff meetings, dedicated training for school authorities, i.e. headteachers, superintendent and TPA, is necessary.

### 9.3 The learning acquired and limitations of this research

Every decision made throughout this research project was an opportunity to learn how to approach knowledge about MTE and CPD as policies for teacher quality improvement. Therefore, the most significant learning relates to how to research these components of the education reform of 2013 amidst a difficult ambience where optimism, rhetoric, hope, fear, distrust, and death were part of the landscape. The analytical skills developed in this research are transferable to other settings and circumstances that require evaluation of policy via multiple research methods and with

practitioners or high-ranking personnel in the education system. Moreover, this thesis showed that despite the absence of publicly accessible data on teachers, data collection through online social networks is justifiable and methodologically feasible if the quality assurance procedures are carefully planned, and any limitations acknowledged.

Nevertheless, this research has limitations as well. First, commensurate with PhD research, this investigation counted on a small sample size of primary teachers in Mexico, almost a third being MTE participants, which limits the generalisability of findings. Therefore, future research could consider reaching a larger proportion of teachers, including printed means for data collection to enhance the representativeness of the study. Second, the survey has limitations related to the length that makes it difficult to collect statistical data on the teachers' experiences with CPD after MTE as it was collected about CPD before MTE. Furthermore, future items seeking to collect information on the teachers' participation in CPD should consider phrasing it as *in a 365-day period* to avoid confusing with two years, e.g. 2014-2015 (see appendix 12).

Third, this research relied on self-reports of teachers' perceptions about CPD and MTE, which might be subject to social desirability. Future research could consider including other sources of data to contrast with the teachers' perspectives on the matter. For example, documentary records of the extent of participation in CPD and minutes from headteachers capturing the teachers' take-up in CPD or their views about TES. Interviewees were also few, and their voluntary nature might have implications in terms of the perspectives they provided to this research. A larger sample could give a more balanced view from teachers in future studies.

## 9.4 Recent policy changes in Mexico

In the teaching profession, it is common to hear about education as a political project that changes at the politicians' will in every presidential period. This research could not illustrate it better. In 2019, following the recent appointment of president Andres Manuel López Obrador from the left-wing MORENA political party, the education reform of 2013 was cancelled, but teacher evaluations will continue (DOF, 2019c). The new TES will be used to diagnose teachers' professional development needs and will dispense with high-stakes consequences. Therefore, the teachers' permanence in the education service will not be linked to results in standardised assessments (DOF, 2019d). Regarding the type of CPD available to teachers, it has been declared that the personnel will be entitled to choose the programmes or courses according to data arising from the diagnostic assessments. The teachers' needs, interests, skills, and contexts will be considered (*ibid*). This new monitoring approach, more qualitatively oriented, believes that teachers, parents and the education system have a part in the performance of the education provided in state-funded Mexican schools.

Many of the strengths and downsides of MTE mentioned in this research are echoed in the new education policy of 2019. Thus, it is encouraging to see the scholar work undertaken at PhD level mirroring such policy changes. Still, other aspects have not permeated, generating the re-emergence of some unhelpful practices from the pre-reform era. For instance, the reappearance of the teachers' union in hiring and promotion processes, as synthesised in **Table 9.1**.

**Table 9.1. A comparison of education policy reform 2013 vs 2019.**

| Topic                              | Post-reform (2013)  | 2019 reform  |
|------------------------------------|---|--|
| Legal right to education in Mexico | Access up-to upper-secondary continued, and the term <i>quality education</i> was included. | The State is mandated to provide initial education, pre-school, primary, lower and upper secondary, and higher education free of charge. |

|  |   |  |
|--|---|--|
| <b>Initial Teacher Education graduates</b>                                     | A probationary period of two years was enacted, and three evaluation applied as follows; entry to the system, at the end of the first and second academic years in-service. MTE became the only legal means to work in the state-funded education sector. | In line with a workforce projection, the number of new teachers needed per region will determine the number of spaces at state-funded ITE schools. Therefore, graduates from these higher education institutions will be prioritised to receive a position in the education system. Diagnostic evaluation at the end of the first year in the service will apply.  |
| <b>Teacher evaluation programmes</b>   | Mexican Teacher Evaluation.   | <p>An admission examination that will evaluate the following:</p> <ul style="list-style-type: none"> <li>a) An assessment of content knowledge and dispositions to foster the academic and integral development of the students.</li> <li>b) Pre-service pedagogical education</li> <li>c) Bachelor's degree</li> <li>d) General grade point average</li> <li>e) Extracurricular CPD certificates</li> <li>f) Academic exchange programmes</li> <li>g) Second language</li> <li>h) Years of experience</li> </ul> <p>The teachers' union co-participates in the evaluation. A new diagnostic evaluation for in-service teachers.</p> |
| <b>Permanence in the job related to performance assessments</b>                | In-service teachers' permanence in the job was linked to performance assessments every four years. NQT could be sacked if underperforming at the end of a two-year probatory period.  | The teachers' permanence in the job is no longer linked to their performance in teacher assessments. A permanent contract is acquired after six months in the job under the general workforce law.   |
| <b>The relevance of teaching experience in teacher performance assessments</b> | Did not count for marks in the ongoing teacher evaluations, but a minimum of two years of experience was required to compete for a leadership role via MTE.   | It does count in the new admission examination. Classroom teachers must have four years of experience before participating in a headteacher role. Headteachers and superintendent must have five   |

|  |   |  |
|--|---|--|
|  |   | years of experience before aspiring to an upper-tier position in the education system.   |
| <b>Provision of feedback following a teacher performance evaluation</b>  | MTE participants were provided with a summative result and formative indicators on their performance via an electronic file.  | There are no data about this.  |
| <b>Teaching standards</b>  | The teaching profiles.  | The professional profiles  |
| <b>State-provided workplace CPD</b>                                      | A new system on superintendent and TPA support to the school. Five days' mandatory school staff CPD meetings before starting a new academic year and eight more days throughout an academic year (13 days in total). The focus was on the annual school improvement plan. | Five days' mandatory school staff CPD meetings before starting a new academic year and eight more days throughout an academic year (13 days in total). The focus is on the <i>New Mexican School</i> , which is the new government's approach to state-funded basic education in Mexico. |
| <b>State-provided individually-oriented CPD</b>                          | Compulsory for teachers with <i>insufficient</i> and <i>non-proficient</i> results in MTE, but not for the rest of the teachers.  | Compulsory during the induction programmes, and a legal right for the rest of the teachers.  |
| <b>Tutorship or mentoring for the teacher</b>                            | Implemented for NQT and underperformers in MTE.   | It is directed to NQT in all types of function; classroom teachers, school authorities, and technical or pedagogical assistants. Leadership roles are assigned a mentor from two to three years.   |
| <b>State-provided CPD providers</b>                                      | 27% were state-funded institutions.   | There are no data about this.  |
| <b>Most take-up CPD subject-areas</b>                                    | Pedagogy; school management; content and pedagogy-knowledge; transversal topics. Inclusion and equity in the school; behaviour management for school and society convivence.  | There are no data about this.  |
| <b>State-provided CPD delivery modes and formats</b>                     | Only online delivery in 2017; Workshops and diplomas.   | There are no data about this.  |
| <b>Providers regarding preparation for a teacher national evaluation</b> | Not considered in the law but undertaken by the local education authorities; self-managed teacher study groups, freelancers, and the teachers' union.   | There are no data about this.  |

Sources: (DOF, 2017b, 2019a, 2019d, 2019c, 2019b).



## 9.5 Recommendations for future research

Three areas for future research stemmed from direct and indirect evidence of this study. First, it is proposed to investigate how teacher turnover statistics are affected by TES with consequences, as well as the impact of teacher evaluations on the preferences for a degree in education. In this regard, recent small-scale qualitative research indicates that the rise of early retirement and a reduced interest in teaching degrees are two emerging concerns in Mexico (Cervantes Holguín, 2019; Cuevas, 2018). Therefore, these are areas of future inquiry that invite the exploration of whether these trends are related to TES or something else.

Second, research is needed to understand how prepared CPD instructors are to undertake the ongoing professional development of teachers. This research, as well as most existing literature, focuses on the effects of CPD on the teachers, but not on the CPD itself and the people who deliver it. Therefore, it is essential to explore current approaches to preparing personnel responsible for CPD provision. Similarly, learning processes at the workplace, such as collaborative forms of development, deserve tailored investigation.

Third, new knowledge is needed regarding the consequences, intended and unintended, of a shift in CPD provision from a state-managed model to one based on the outsourcing of teacher training. This research revealed that MTE participants who undertook CPD with market-based providers considered the offer good quality and relevant for their teaching. Nevertheless, state-funded institutions such as normal schools and teacher centres are likely affected, risking their roles in teacher preparation. Furthermore, the participation of external entities in teacher CPD might weaken the agency of the education authority in matters of teacher training, despite regaining control was an aspiration of the reform of 2013. Therefore, it is vital to investigate this issue carefully.

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## 11 Appendices

### Appendix 1. CENEVAL, who are they?

According to their website, the CENEVAL is a non-for-profit civil organisation which ‘since 1994 provides reliable and valid information about the knowledge and skills that people acquire as beneficiaries of the educational programmes at different levels of formal and informal education’ (CENEVAL, n.d.). This organisation has gained fame for their standardised exams which are used by a myriad of higher education institutions in Mexico for entry and exit to/from tertiary education purposes. Furthermore, the CENEVAL has played actively in the assessment of student teachers at halfway the programme, and when exiting ITE (R. Rodríguez, 2013). Their involvement in MTE consisted of developing and delivering a standardised exam as part of the MTE phases (Ramírez & Torres, 2016). Participants of the teacher evaluation complained about the way personnel from this organisation mistreated them during the exam phase as ‘it was considered inappropriate, lacking empathy with the teachers’ needs, and sometimes, rude’ (INEE, 2016c, p. 40).

To date, there is no certainty as to how much it cost to evaluate teachers because, among other reasons, ‘the contracts between SEP and CENEVAL have not been made public yet’ (Torres, 2019, p. 6).

## Appendix 2. The technical assistance to the school system and escuelas al cien

### The Technical Assistance to the School System

The education reform of 2013 included a formative component for school development which draws on previous programmes mentioned in section 2.5. The new system instructed superintendent and TPA to approach headteachers and their schools to enact action plans for improvement (DOF, 2013a). A critical change consisted of the creation of two new personnel types ‘which did not exist in the education system: tutors and TPA by promotion, whose functions were associated with the development of oral and written language, and mathematical thinking’ (Cordero et al., 2017, p. 47). Both cases must participate in MTE to get a post. Backhoff and Pérez-Morán (2015, p. 74) described these two new roles designed to support teachers’ professional development:

- *Tutoría*. These activities are directed to new teachers and consist of the allocation of a more senior tutor to the new educator.
- *Asesoría y acompañamiento*. These activities consist of specialised guidance to the schools through a dedicated group of assessors, namely TPA.

School districts vary in size and dispersion. However, the system aims to provide every school district with at least one superintendent ; two promoted TPA; one temporary TPA<sup>31</sup>, in the case of primary education; and one TPA focusing on school management and administration (SEP, 2017e, article 14th). Still, there are various challenges to get over; for instance, 7% of the primary school districts in Mexico (i.e. 419) have more than 20 schools each (INEE, 2015a, p. 5). The least dense districts are in the state of Tlaxcala with a maximum of 12 schools, and the densest in Veracruz with 77 schools (*Ibid*). The new school inspection system must provide tailored consultancy to at

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<sup>31</sup> Temporary TPA are regular classroom teachers who seek to participate as TPA for one academic year and are appointed via MTE (DOF, 2017a).

least two struggling schools during an academic year based on a series of underperformance criteria (SEP, 2017e, p. 41). Hence, the impact of the system could be minimal and insufficient to address the needs of the schools.

In other contexts such as Chile, with comparable policies in place, ‘the visit of a superintendent or a headteacher to the classroom aimed at filling out a report without any criteria nor explicit instruments’ (Ravela, 2011, p. 222). Thus, it is expected that headteachers, superintendent and TPA interaction with teachers increases and gains structuring because of these guidelines. Still, policymakers must notice that the new system arrives at a field in which headteacher and superintendent have inadequate preparation on this matter (Martínez Rizo, 2016).

### Escuelas al Cien

The reform of 2013 included a component to improve the schools’ infrastructure deficiencies via a joint venture between public funds and the issue of bond certificates which were put in the stock market for a total of MXN 50 thousand million (£2 million). The so-called *Escuelas al Cien* (schools in working conditions) programme, which was announced in mid-2015 was bound to help 34,500 schools to address some of their material constraints via cash transfers in the following order:

1. Structural safety, and general working conditions of the buildings
2. Sanitary facilities
3. Drinking water services
4. Classroom amenities
5. Accessibility for people with disabilities
6. Development of spaces for administrative duties
7. Infrastructure for connectivity
8. Multiuse purpose spaces (ASF, 2018, p. 8)

Although the programme was set to address the pressing needs of the schools via a novel scheme which did not require the immediate availability of resources coming from public funds due to its

stock market component, 'the states compromised 25% of their annual budget for educational infrastructure projects for 25 years' (ASF, 2018, p. 10). Furthermore, the bond certificates will be paid with an 8% interest annually (INIFED, 2015). The last report issued in late July 2019 shows that more than 25 thousand schools have used monetary resources. Such proportion represents a little more than 10% of the total schools in basic education in Mexico. However, the programme also transferred funds to upper-secondary institutions and higher education buildings which required refurbishment as the states' education annual budget includes those levels of education in their regulatory framework. Moreover, according to a technical report at the time when 8 thousand schools had already received the funds revealed that 'the institutions more positively impacted by the programme were located in regions or zones considered as of low or very low social disadvantage' (ASF, 2018, p. 27). That is, the cash transfers were assigned to the schools, which, according to census categorisations, were not as needy as other communities of Mexico.

Overall, *Escuelas al Cien* will be insufficient to address the needs of the total schools with necessities of different nature because according to recent data, only in primary education 45% of the schools do not have all their facilities in working conditions (ASF, 2018). Furthermore, the programme does not include a component for regular maintenance of the schools (Vera, 2016), which potentially was the prime reason why Mexican schools are in its current state. Finally, the programme is not exempt from allegations of corrupt practices, mainly concerning the misalignment between the actual costs of a given assignment and the invoice reported to the authority (Ramos, 2019). Therefore, the implementation of a programme like *Escuelas al Cien* should be monitored very closely to ensure that not only the funds are used transparently, but that the resources reach the neediest schools.

### Appendix 3. The secondary laws, the cogwheels of the education reform

MTE operated through three secondary laws as follows:

1. The National Institute of Educational Evaluation (INEE) Law (DOF, 2013a)
2. The Professional Teaching Service Law (DOF, 2013b)
3. Creation of the National Coordination of Professional Teaching Service (CNSPD) (DOF, 2013)

Briefly, the first of the secondary laws granted institutional autonomy to the INEE to recommend guidelines regarding education system evaluation. Therefore, this institute was responsible for the technical aspects of the teacher evaluation, such as deciding —not designing— the quantity and types of instruments integrating the assessment, and the validation of the instruments generated by the CNSPD. The budget approved for the INEE to fulfil their duties concerning MTE went from '294.86 million pesos (£11.95 million) in 2013 up to 1,227.73 million pesos (£49.78 million) in 2018 (PEF, 2013 & 2016, cited in Torres Ramírez, 2019, p. 6). Furthermore, 'in 2012, the institute had 144 employees and increased to 1,030 employees in 2018' (*ibid*). The second law set the legal aspects and procedures of MTE, including the debated article 53, which stated that teachers who failed the evaluation three times would be separated from the service with no responsibility to the employer (DOF, 2013a). The third and last law posited the guidelines for an organisation within the secretariat of education, i.e., the CNSPD, which oversaw the design of MTE instruments and was granted decision to outsource consultants and contract some of their duties. For instance, the development and delivery of a standardised exam were commissioned to CENEVAL.

## Appendix 4. The scope of MTE

MTE was used to regulate entry to the public education service and for ongoing assessment of in-service teachers; furthermore, it was used for promotion, such as headteacher posts and salary increments. Finally, the evaluation was also meant to grant teachers temporary appointments as teacher's tutor. Table 10.1 summarises the scope of MTE.

Table 10.1. An overview of the different evaluations under MTE.

| Purpose                               | Subject of evaluation  | Process                        |
|---------------------------------------|--|--------------------------------|
| Entry to the service                  | Graduates from a teacher college or another higher education institution                       | Entry to the service contest   |
|                                       | One-year teaching' experience educators (probationary period)                                  | Diagnostic appraisal           |
|                                       | Two-year teaching' experience educators (probationary period)                                  | Teacher performance evaluation |
| Promotion                             | Vertical promotion:<br>headteacher and sub-head of school                                      | Promotion contest              |
|                                       | Superintendent ; inspector; chief of a zone; chief of a sector; chief of teaching and learning |                                |
|                                       | Technical and Pedagogy Assessor (TPA)  |                                |
|                                       | Horizontal promotion:<br>Salary increment  |                                |
|                                       | Paid hours increment   |                                |
| To retain the post (every four years) | Two-year experience TPA (probationary period)  | Teacher performance evaluation |
|                                       | Classroom teachers and TPA   | Teacher performance evaluation |
|                                       | Headteacher and sub-headteacher  |                                |
| Acknowledgement                       | Superintendent ; inspector; chief of a zone; chief of a sector; chief of teaching and learning | No name was given              |
|                                       | Temporary TPA  |                                |
|                                       | Temporary tutor  |                                |

Source: : (Ramírez & Torres, 2016, p. 17).

Candidates who sought to obtain a headteacher or a TPA post via MTE, likewise NQT classroom teachers, must sit an exam and be re-evaluated after a two-year probation period. Still, not superintendents who obtained tenure after succeeding in one evaluation (Ramírez & Torres, 2016). Some in-service teachers lacking a contract sought to secure their place via the assessment as well.



While candidates to enter the education system and those seeking a promotion would sit a standardised exam, those undertaking a teacher performance evaluation, e.g., *to retain post* (either voluntarily or via a draw), or at the end of a two-year probation period, underwent all MTE phases.

## Appendix 5. The feedback report: an example

SE  
SECRETARÍA DE EDUCACIÓN PÚBLICA

COMISIÓN NACIONAL DE SERVICIO PROFESIONAL DOCENTE

EVUACIÓN DEL DESEMPEÑO EDUCACIÓN BÁSICA  
CICLO ESCOLAR 2015-2016  
SERVICIO PROFESIONAL DOCENTE  
PERSONAL DOCENTE

CNSPD  
COMISIÓN NACIONAL DE SERVICIO PROFESIONAL DOCENTE

### Informe individual de resultados

**DATOS DEL PERSONAL EVALUADO**

Nombre:

Función:

Foto:

Tipo de evaluación:

CURP:

Centro de Trabajo:

**RESULTADO DE LA EVALUACIÓN**

Puntuación obtenida: **1362**

Grupo de desempeño: **Good**

**CRITERIOS PARA DETERMINAR EL GRUPO DE DESEMPEÑO**

| Grupo de desempeño | Rango de puntuaciones en la escala global (800 a 1600 puntos) |
|--------------------|---|
| Suficiente         | al menos 1000 puntos  |
| Buena              | al menos 1200 puntos  |
| Destacado          | al menos 1400 puntos  |

**CRITERIOS PARA LA SUFICIENCIA EN LA EVALUACIÓN**

El docente con un resultado suficiente en el proceso de evaluación será aquel que cumpla con los siguientes criterios:

- 1) Haya presentado todas y cada una de las etapas que son consideradas para efectos de calificación
- 2) Obtenga, al menos, el nivel de desempeño II (N II) en por lo menos dos de las tres etapas que integran la calificación global
- 3) Obtenga al menos 1 000 puntos en la escala de calificación global

**CRITERIOS PARA EL RESULTADO DE LAS ETAPAS DE EVALUACIÓN**

| Etapas | Niveles de desempeño |                  |                  |                  |
|--------|----------------------|------------------|------------------|------------------|
|        | N I                  | N II             | N III            | N IV             |
| EEE    | menos de 100 pts     | al menos 100 pts | al menos 107 pts | al menos 114 pts |
| ECCDA  | menos de 100 pts     | al menos 100 pts | al menos 110 pts | al menos 116 pts |
| PDA    | menos de 100 pts     | al menos 100 pts | al menos 107 pts | al menos 115 pts |

**RESULTADOS POR ETAPA DE EVALUACIÓN**

| Etapas   | Área | Puntuación que reporta el área al total de la etapa | Puntuación por etapa | Nivel de desempeño |
|--|------|---|----------------------|--------------------|
| Etapa 2. Expediente de evidencias de enseñanza (EEE)   |      | No se reportan puntuaciones por área                | 109                  | N II               |
| Etapa 3. Examen de conocimientos y competencias didácticas que favorecen el aprendizaje de los alumnos (ECCDA) | A1   | 75  | 115                  | N II               |
|  | A2   | 40  |                      |                    |
| Etapa 4. Planeación didáctica argumentada (PDA)  |      | No se reportan puntuaciones por área                | 117                  | N IV               |

(ECCDA)  
A1: INTERVENCIÓN DOCENTE  
A2: AMBIENTES PARA EL APRENDIZAJE

## Appendix 6. The framework for Teaching (FfT) (Danielson, 2013)

### The Four Domains of the Framework for Teaching Evaluation Instrument, 2013 Instructionally Focused Edition

Descriptions of the four domains are presented in the table below.

| Domain                                  | Description  |
|---|--|
| <b>1. Planning &amp; Preparation</b>    | Effective teachers plan and prepare for lessons using their extensive knowledge of the content area, the relationships among different strands within the content and between the subject and other disciplines, and their students' prior understanding of the subject. Instructional outcomes are clear, represent important learning in the subject, and are aligned to the curriculum. The instructional design includes learning activities that are well sequenced and require all students to think, problem solve, inquire, and defend conjectures and opinions. Effective teachers design formative assessments to monitor learning, and they provide the information needed to differentiate instruction. Measures of student learning align with the curriculum, enabling students to demonstrate their understanding in more than one way. |
| <b>2. Classroom Environment</b>         | Effective teachers organize their classrooms so that all students can learn. They maximize instructional time and foster respectful interactions with and among students, ensuring that students find the classroom a safe place to take intellectual risks. Students themselves make a substantive contribution to the effective functioning of the class by assisting with classroom procedures, ensuring effective use of physical space, and supporting the learning of classmates. Students and teachers work in ways that demonstrate their belief that hard work will result in higher levels of learning. Student behavior is consistently appropriate, and the teacher's handling of infractions is subtle, preventive, and respectful of students' dignity.  |
| <b>3. Instruction</b>                   | In the classrooms of accomplished teachers, all students are highly engaged in learning. They make significant contributions to the success of the class through participation in high-level discussions and active involvement in their learning and the learning of others. Teacher explanations are clear and invite student intellectual engagement. The teacher's feedback is specific to learning goals and rubrics and offers concrete suggestions for improvement. As a result, students understand their progress in learning the content and can explain the learning goals and what they need to do in order to improve. Effective teachers recognize their responsibility for student learning and make adjustments, as needed, to ensure student success.   |
| <b>4. Professional Responsibilities</b> | Accomplished teachers have high ethical standards and a deep sense of professionalism, focused on improving their own teaching and supporting the ongoing learning of colleagues. Their record-keeping systems are efficient and effective, and they communicate with families clearly, frequently, and with cultural sensitivity. Accomplished teachers assume leadership roles in both school and LEA projects, and they engage in a wide range of professional development activities to strengthen their practice. Reflection on their own teaching results in ideas for improvement that are shared across professional learning communities and contribute to improving the practice of all.   |

## Appendix 7. Piloting the questionnaire

The questionnaire was piloted three times, (one with pen and paper, and two more using online survey). The pen and paper pilot study was conducted in Colima, Mexico, on the 16<sup>th</sup> July 2016, with five primary teachers who participated in MTE 2015<sup>32</sup>. These teachers were contacted through a snowball sampling technique (Sedgwick, 2013) using a social media network, i.e. Facebook. The pilot consisted of a two-hour focus group. Consent forms were provided to the teachers, as well as rewards for their participation. The guidelines of Boynton (2004) were followed and implemented throughout the trial. For example, using a precise wording; piloting the instrument with a population like the one who was to be involved in the research, and taking notes of questions raised by the participants were all implemented. It took fifty minutes on average for a teacher to complete this pilot version of the questionnaire.

The first online survey pilot was in Colima, Mexico, on 27<sup>th</sup> May 2017; the pilot consisted of a two-hour focus group with four primary teachers who responded to the instrument individually. These teachers were contacted via social media networks and referred by previous participants. Consent forms and rewards were provided for taking part. The other pilot study consisted of the distribution of the online questionnaire through purposively selected teacher groups on Facebook which gathered people from all main regions of Mexico (e.g. South-East, Central Mexico, the South-West, and the North). Doing so helped to offset recurrent pilots with participants from the same context (i.e., Colima). Two layouts of the questionnaire were tested by opening the online survey for one week at the end of June 2017.

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<sup>32</sup> Colima is the researcher's hometown, hence, familiarity with the context facilitated access to participants and proved to be a cost-effective strategy for piloting the data collection instruments.

The pilots helped to adapt the items accordingly as mentioned in the instrument development section and to reduce the time it took a participant to complete a questionnaire down to 20 minutes.

## Appendix 8. Piloting the interview protocols

In late May 2017, a headteacher who participated in MTE to regularise his temporary contract, and a classroom teacher who obtained a *sufficient* result in the evaluation were invited to review the interview schedules in separate one-hour face-to-face meetings. These teachers were asked first to answer the online survey to emulate the conditions that actual participants would experience. During these pilot studies, it was noted that teachers might easily deviate from the focus of the research because they tend to talk about several topics not related to the questions asked. Therefore, this situation must be addressed during actual interviews by gently reorienting conversations to a set of questions previously prepared for each section of the interview protocols. These participants' insights into the concerns they had about MTE implementation and consequences for the job enriched the tailored interview protocols designed for policymakers. For instance, teachers suggested that their views concerning the high-stakes consequences of MTE and its feasibility to improve the quality of education seemed to contrast with those coming from policymakers. Likewise, potential disagreements between teachers and headteachers became evident, particularly, headteachers might at times, take a policymaker stance given their role as educational leaders and promoters of quality education in their schools. Therefore, it was decided to address headteachers and policymakers together, and contrast their views with those from teachers.

## Appendix 9. Research questionnaire and raw data

1. Do you want to proceed to the survey? *Required*

|                          |                              |             |
|--------------------------|------------------------------|-------------|
| <input type="checkbox"/> | Yes, I want to proceed       | 521 (98.5%) |
| <input type="checkbox"/> | No, I do not want to proceed | 8 (1.5%)    |
|                          | Total                        | 529 (100%)  |

2. Can you please confirm the following: *Required*

|                          |   |              |
|--------------------------|---|--------------|
| <input type="checkbox"/> | I am not a public primary school teacher  | 92 (17.7%)   |
| <input type="checkbox"/> | I am a public primary school teacher with LESS THAN FOUR years of teaching experience | 62 (11.9%)   |
| <input type="checkbox"/> | I am a public primary school teacher with FOUR years of teaching experience OR MORE   | 367 (70.4%)* |
|                          | Total   | (100%)       |

\*From here onwards, percentages correspond to valid sample  $n=367$  (four years of teaching experience or more). On request, descriptive statistics can be provided considering the total respondents of the survey ( $n=529$ ).

3. How did you access this survey?\* *Required*

|                          |                          |             |
|--------------------------|--------------------------|-------------|
| <input type="checkbox"/> | Facebook                 | 250 (68.1%) |
| <input type="checkbox"/> | Twitter                  | 2 (0.5%)    |
| <input type="checkbox"/> | The researcher's website | 5 (1.4%)    |
| <input type="checkbox"/> | E-mail                   | 97 (26.4%)  |
| <input type="checkbox"/> | WhatsApp                 | 13 (3.5%)   |
| <input type="checkbox"/> | Other                    | 0           |
|                          | Total                    | 367 (100%)  |

3a. If you chose "other", please specify:

## Teacher basic information

### 4. Gender *Required*

|                          |       |             |
|--------------------------|-------|-------------|
| <input type="checkbox"/> | Woman | 243 (66.2%) |
| <input type="checkbox"/> | Man   | 124 (33.8%) |
|                          | Total | 367 (100%)  |

### 5. What is your age in years? *Required*

| N   | Missing values | Minimum | Maximum | Mean  | SD    |
|-----|----------------|---------|---------|-------|-------|
| 364 | 3              | 25      | 67      | 42.69 | 9.167 |

### 6. What is your highest academic qualification? *Required*

|                          |  |             |
|--------------------------|--|-------------|
| <input type="checkbox"/> | Upper-secondary, professional technician, Normal school before 1983  | 16 (4.4%)   |
| <input type="checkbox"/> | Technician (university)  | 0           |
| <input type="checkbox"/> | Normal school (bachelor), University bachelor, University-technology | 193 (52.6%) |
| <input type="checkbox"/> | Masters  | 140 (38.1%) |
| <input type="checkbox"/> | PhD  | 18 (4.9%)   |
|                          | Total  | 367 (100%)  |

### 7. Have you undertaken formal training related to teaching in primary school? *Required*

|                          |       |             |
|--------------------------|-------|-------------|
| <input type="checkbox"/> | Yes   | 316 (86.1%) |
| <input type="checkbox"/> | No    | 51 (13.9%)  |
|                          | Total | 367 (100%)  |

### 8. How many years of teaching experience in primary education do you have **in total**? *Required*

| N   | Minimum | Maximum | Mean | SD     |
|-----|---------|---------|------|--------|
| 367 | 4       | 47      | 19.9 | 10.062 |

9. Currently, what is your contractual situation as a primary school teacher? *Required*

|                          |  |             |
|--------------------------|--|-------------|
| <input type="checkbox"/> | I am a full-time primary school teacher            | 107 (29.2%) |
| <input type="checkbox"/> | I am a part-time primary school teacher            | 219 (59.7%) |
| <input type="checkbox"/> | Other (e.g., appointed-commissioned, annual leave) | 41 (11.2%)  |
|                          | Total  | 367 (100%)  |

10. In which Mexican state are you currently working? *Required*

|                      |            |                                 |            |
|----------------------|------------|---------------------------------|------------|
| Aguascalientes       | 4 (1.1%)   | Morelos                         | 9 (2.5%)   |
| Baja California      | 13 (3.5%)  | Nayarit                         | 5 (1.4%)   |
| Baja California Sur  | 0          | Nuevo León                      | 11 (3%)    |
| Campeche             | 2 (0.5%)   | Oaxaca                          | 2 (0.5%)   |
| Chiapas              | 4 (1.1%)   | Puebla                          | 18 (4.9%)  |
| Chihuahua            | 15 (4.1%)  | Querétaro                       | 6 (1.6%)   |
| Ciudad de México     | 37 (10.1%) | Quintana Roo                    | 2 (0.5%)   |
| Coahuila de Zaragoza | 9 (2.5%)   | San Luis Potosí                 | 11 (3%)    |
| Colima               | 5 (1.4%)   | Sinaloa                         | 5 (1.4%)   |
| Durango              | 6 (1.6%)   | Sonora                          | 4 (1.1%)   |
| Estado de México     | 56 (15.3%) | Tabasco                         | 5 (1.4%)   |
| Guanajuato           | 18 (4.9%)  | Tamaulipas                      | 16 (4.4%)  |
| Guerrero             | 3 (0.8%)   | Tlaxcala                        | 3 (0.8%)   |
| Hidalgo              | 6 (1.6%)   | Veracruz de Ignacio de la Llave | 37 (10.1%) |
| Jalisco              | 37 (10.1%) | Yucatán                         | 4 (1.1%)   |
| Michoacán de Ocampo  | 4 (1.1%)   | Zacatecas                       | 10 (2.7%)  |
|                      |            | Total                           | 367 (100%) |

11. In what type of primary school do you currently work? *Required*

|                          |  |             |
|--------------------------|--|-------------|
| <input type="checkbox"/> | General (each school grade has a teacher)                                | 308 (83.9%) |
| <input type="checkbox"/> | Multi-grade (more than one school grade per teacher)                     | 26 (7.1%)   |
| <input type="checkbox"/> | In both at the same time (e.g. one in the morning, one in the afternoon) | 33 (9%)     |
|                          | Total  | 367 (100%)  |

12. What school grade(s) do you teach? (click more than one if needed) *Required*

|                          |                       |             |
|--------------------------|-----------------------|-------------|
| <input type="checkbox"/> | 1 <sup>st</sup> grade | 86 (23.4%)  |
| <input type="checkbox"/> | 2 <sup>nd</sup> grade | 77 (21%)    |
| <input type="checkbox"/> | 3 <sup>rd</sup> grade | 74 (20.2%)  |
| <input type="checkbox"/> | 4 <sup>th</sup> grade | 76 (20.7%)  |
| <input type="checkbox"/> | 5 <sup>th</sup> grade | 108 (29.4%) |
| <input type="checkbox"/> | 6 <sup>th</sup> grade | 125 (34.1%) |

Percentages correspond to valid sample  $n=367$  (four years of teaching experience or more) and are not mutually exclusive, hence, they do not sum up to 100%

13. Are there any indigenous students at your school(s)? *Required*

|                          |       |             |
|--------------------------|-------|-------------|
| <input type="checkbox"/> | Yes   | 104 (28.3%) |
| <input type="checkbox"/> | No    | 263 (71.7%) |
|                          | Total | 367 (100%)  |

In this section, you will be asked about Continuing Professional Development provided by the educational authority [during the period 2014-2015](#). That is, prior to the first Mexican Teacher Evaluation. *Here, CPD should not be confused with initial teacher training at the college. CPD refers to the training undertaken once in service.*

**Definition of Continuing Professional Development:** CPD should be understood as any training activity (mandatory or voluntary; formal or informal) aimed at enhancing your profession; such as your knowledge, skills, competencies, school/classroom management, and awareness of the teaching and learning phenomena.



14. If you undertook CPD [provided by the educational authority](#) related to the following options [during the period 2014-2015](#), please rate the [level of impact](#) that this particular CPD option had on your professional development. IMPORTANT: If you have not undertaken any option, please tick N/A.

| <i>n</i> =367   | Level of impact <i>Required</i> |               |               |                |                |
|---|---------------------------------|---------------|---------------|----------------|----------------|
|   | N/A                             | No impact     | Small         | Moderate       | Large          |
| Characteristics of the most recent curriculum               | 141<br>(38.4%)                  | 6<br>(1.6%)   | 34<br>(9.3%)  | 109<br>(29.7%) | 77<br>(21%)    |
| Academic content knowledge of my school grade               | 138<br>(37.6%)                  | 3<br>(0.8%)   | 22<br>(6%)    | 103<br>(28.1%) | 101<br>(27.5%) |
| Pedagogy/instruction of the curriculum in primary education | 138<br>(37.6%)                  | 9<br>(2.5%)   | 32<br>(8.7%)  | 97<br>(26.4%)  | 91<br>(24.8%)  |
| How to teach in multicultural settings                      | 186<br>(50.7%)                  | 43<br>(11.7%) | 66<br>(18%)   | 57<br>(15.5%)  | 15<br>(4.1%)   |
| ICT skills for teaching and learning                        | 143<br>(39%)                    | 18<br>(4.9%)  | 50<br>(13.6%) | 85<br>(23.3%)  | 71<br>(19.3%)  |
| Student discipline and behaviour problems                   | 154<br>(42%)                    | 28<br>(7.6%)  | 48<br>(13.1%) | 86<br>(23.4%)  | 51<br>(13.9%)  |

15. Continuation of the previous question...

| <i>n</i> =367  | Level of impact <i>Required</i> |              |               |                |               |
|--|---------------------------------|--------------|---------------|----------------|---------------|
|  | N/A                             | No impact    | Small         | Moderate       | Large         |
| Student assessment practices                         | 138<br>(37.6%)                  | 5<br>(1.4%)  | 30<br>(8.2%)  | 100<br>(27.2%) | 94<br>(25.6%) |
| How to counsel students (e.g. future studies/career) | 160<br>(43.6%)                  | 32<br>(8.7%) | 51<br>(13.9%) | 82<br>(22.3%)  | 42<br>(11.4%) |
| How to teach students with special needs             | 164<br>(44.7%)                  | 30<br>(8.2%) | 64<br>(17.4%) | 69<br>(18.8%)  | 40<br>(10.9%) |

|                                       |                |              |               |               |              |
|---------------------------------------|----------------|--------------|---------------|---------------|--------------|
| Psychological development of students | 163<br>(44.4%) | 24<br>(6.5%) | 62<br>(16.9%) | 86<br>(23.4%) | 32<br>(8.7%) |
| School administration and management  | 157<br>(42.8%) | 20<br>(5.4%) | 59<br>(16.1%) | 76<br>(20.7%) | 55<br>(15%)  |

16. What used to be the **format** of the CPD **provided by the educational authority** that you undertook **during the period 2014-2015**? (you can tick as many as needed).

|                          |  |             |
|--------------------------|--|-------------|
| <input type="checkbox"/> | I did not undertake CPD during that period | 120 (32.7%) |
| <input type="checkbox"/> | Short course or workshop                   | 180 (49%)   |
| <input type="checkbox"/> | Master's degree or PhD                     | 33 (9%)     |
| <input type="checkbox"/> | Education conference or seminar            | 48 (13.1%)  |
| <input type="checkbox"/> | Mentoring or coaching                      | 17 (4.6%)   |
| <input type="checkbox"/> | Diploma or specialty                       | 72 (19.6%)  |
| <input type="checkbox"/> | Education research organised by teachers   | 26 (7.1%)   |
| <input type="checkbox"/> | Observation visit to other schools         | 26 (7.1%)   |
| <input type="checkbox"/> | Skills development at public or private    | 24 (6.5%)   |
| <input type="checkbox"/> | Institution other                          | 0           |

Percentages correspond to valid sample  $n=367$  (four years of teaching experience or more) and are not mutually exclusive, hence, they do not sum up to 100%

16a. If you chose "other", please specify:

17. Who **provided** the CPD option(s) arranged by the State that you undertook **during the period 2014-2015**? (chose as many as needed) *Required*

|                          |  |             |
|--------------------------|--|-------------|
| <input type="checkbox"/> | I did not undertake CPD during that period       | 120 (32.7%) |
| <input type="checkbox"/> | A Higher Education private institution           | 44 (12%)    |
| <input type="checkbox"/> | A Higher Education public institution            | 42 (11.4%)  |
| <input type="checkbox"/> | A non-lucrative organisation (civil association) | 15 (4.1%)   |
| <input type="checkbox"/> | A Teacher Centre                                 | 131 (35.7%) |

|                          |                                 |            |
|--------------------------|---------------------------------|------------|
| <input type="checkbox"/> | A Teacher College               | 8 (2.2%)   |
| <input type="checkbox"/> | An independent advisor          | 43 (11.7%) |
| <input type="checkbox"/> | The Secretary of Education      | 71 (19.3%) |
| <input type="checkbox"/> | Headteacher or school colleague | 10 (2.7%)  |

Percentages correspond to valid sample  $n=367$  (four years of teaching experience or more) and are not mutually exclusive, hence, they do not sum up to 100%.

18. During the period 2014-2015, have you undertaken CPD provided by the educational authority via any of the following delivery means? Please indicate how pertinent has each of these three options been to your professional development. Tick N/A if you did not undertake any of the options.

| $n=367$          | The extent of pertinence for your professional development <i>Required</i> |              |               |               |               |
|------------------|--|--------------|---------------|---------------|---------------|
|                  | N/A  | Not at all   | Little        | Moderately    | Much          |
| Online           | 196<br>(53.4%)   | 22<br>(6%)   | 33<br>(9%)    | 70<br>(19.1%) | 46<br>(12.5%) |
| In-person        | 145<br>(39.5%)   | 10<br>(2.7%) | 42<br>(11.4%) | 87<br>(23.7%) | 83<br>(22.6%) |
| Blended learning | 214<br>(58.3%)   | 19<br>(5.2%) | 20<br>(5.4%)  | 71<br>(19.3%) | 43<br>(11.7%) |

19. Apart from staff development meetings, how many days did you spend in CPD provided by the educational authority during the period 2014-2015? NOTE: if you do not remember, please give an approximate number.

| N   | Minimum | Maximum | Mean  | SD     |
|-----|---------|---------|-------|--------|
| 367 | 0       | 260     | 34.20 | 57.135 |

20. How were you evaluated after concluding CPD undertaken during the period 2014-2015? (tick as many as needed) *Required*

|                          |  |             |
|--------------------------|--|-------------|
| <input type="checkbox"/> | I did not undertake CPD during that period     | 120 (32.7%) |
| <input type="checkbox"/> | Completing the hours required was enough       | 113 (30.8%) |
| <input type="checkbox"/> | Presenting a final written or oral examination | 104 (28.3%) |

|                          |   |            |
|--------------------------|---|------------|
| <input type="checkbox"/> | Conducting a school-based research project            | 75 (20.4%) |
| <input type="checkbox"/> | A fellow teacher or principal decided my 'pass' marks | 44 (12%)   |
| <input type="checkbox"/> | Other   | 0          |

Percentages correspond to valid sample  $n=367$  (four years of teaching experience or more) and are not mutually exclusive, hence, they do not sum up to 100%

20a. If you chose "other", please specify:

21. Please mention a characteristic of the CPD **provided by the educational authority during the period 2014-2015** that has had a **positive** impact on your professional development:

22. Please mention a characteristic of the CPD **provided by the educational authority during the period 2014-2015** that has had **no impact** or a **negative** impact on your professional development:

### Formal Continuing Professional Development

23. Please rate the level of impact that the following **formal** CPD options have had on your professional development. If you have not experienced any of them, please tick N/A.

| <i>n</i> =367  |                | Required      |               |                |               |
|--|----------------|---------------|---------------|----------------|---------------|
|  | N/A            | No impact     | Small         | Moderate       | Large         |
| The intensive school staff CPD meeting                   | 21<br>(5.7%)   | 24<br>(6.5%)  | 79<br>(21.5%) | 144<br>(39.2%) | 99<br>(27%)   |
| Monthly school staff CPD meetings                        | 20<br>(5.4%)   | 28<br>(7.6%)  | 67<br>(18.3%) | 156<br>(42.5%) | 96<br>(26.2%) |
| Head teacher classroom observation                       | 50<br>(13.6%)  | 51<br>(13.9%) | 77<br>(21%)   | 118<br>(32.2%) | 71<br>(19.3%) |
| School superintendent classroom observation              | 71<br>(19.3%)  | 74<br>(20.2%) | 81<br>(22.1%) | 102<br>(27.8%) | 39<br>(10.6%) |
| Technical and Pedagogical Assessor classroom observation | 108<br>(29.4%) | 88<br>(24%)   | 61<br>(16.6%) | 68<br>(18.5%)  | 42<br>(11.4%) |

### Informal Continuing Professional Development

24. Please rate the level of impact of **informal** CPD on your professional development. If you have not participated in any of the options, please tick N/A.

| n=367  | Required      |               |               |                |                |
|--|---------------|---------------|---------------|----------------|----------------|
|  | N/A           | No impact     | Small         | Moderate       | Large          |
| Teachers' study groups                                     | 89<br>(24.3%) | 29<br>(7.9%)  | 60<br>(16.3%) | 94<br>(25.6%)  | 95<br>(25.9%)  |
| Education research within the school                       | 96<br>(26.2%) | 39<br>(10.6%) | 67<br>(18.3%) | 94<br>(25.6%)  | 71<br>(19.3%)  |
| Conversations with fellow teachers about education matters | 28<br>(7.6%)  | 19<br>(5.2%)  | 68<br>(18.5%) | 129<br>(35.1%) | 123<br>(33.5%) |
| Use and consult of commercial materials or bibliography    | 32<br>(8.7%)  | 27<br>(7.4%)  | 84<br>(22.9%) | 132<br>(36%)   | 92<br>(25.1%)  |
| Self-learning, such as e-learning                          | 21<br>(5.7%)  | 11<br>(3%)    | 36<br>(9.8%)  | 114<br>(31.1%) | 185<br>(50.4%) |
| Consulting academic research                               | 34<br>(9.3%)  | 15<br>(4.1%)  | 42<br>(11.4%) | 144<br>(39.2%) | 132<br>(36%)   |

25. Have you been already evaluated under MTE? *Required*

|                          |                                   |             |
|--------------------------|-----------------------------------|-------------|
| <input type="checkbox"/> | Yes in 2015                       | 76 (20.7%)  |
| <input type="checkbox"/> | Yes in 2016                       | 55 (15%)    |
| <input type="checkbox"/> | No, I have not been evaluated yet | 236 (64.3%) |
|                          | Total                             | 367 (100%)  |

Dear teacher, remember that the answers provided in this questionnaire are anonymous and confidential.

26. Was your participation in MTE voluntary or as a result of a draw? \* *Required*

|                          |           |            |
|--------------------------|-----------|------------|
| <input type="checkbox"/> | Voluntary | 69 (52.7%) |
| <input type="checkbox"/> | A draw    | 62 (47.3%) |
|                          | Total     | 131 (100%) |

\* From here onwards, percentages correspond to valid sample  $n=131$  (MTE participants)

27. In which of the following options did you participate? *Required*

|                          |  |            |
|--------------------------|--|------------|
| <input type="checkbox"/> | Entry to the service (just graduated)  | 2 (1.5%)   |
| <input type="checkbox"/> | Entry to the service (assessment at the end of the first or second year)                             | 2 (1.5%)   |
| <input type="checkbox"/> | To retain my post (tenured)  | 67 (51.1%) |
| <input type="checkbox"/> | To retain my post (not tenured)  | 6 (4.6%)   |
| <input type="checkbox"/> | Professional enhancement (e.g. school principal, Technical and Pedagogical Advisor, superintendent ) | 45 (34.4%) |
| <input type="checkbox"/> | Salary improvement   | 9 (6.9%)   |
|                          | Total  | 131 (100%) |

27a. If you chose "other", please specify:

28. In preparation for your teacher evaluation (MTE), did you participate in a teachers' study group(s), either free of charge or involving some monetary costs? *Required*

|                          |  |            |
|--------------------------|--|------------|
| <input type="checkbox"/> | Yes, I did participate in a study group  | 70 (53.4%) |
| <input type="checkbox"/> | No, I did not take part in a study group | 61 (46.6%) |
|                          | Total                                    | 131 (100%) |

28a. Did you continue in the study group after your teacher evaluation (MTE) concluded?

|                          |  |            |
|--------------------------|--|------------|
| <input type="checkbox"/> | Yes, the study group(s) continues to exist           | 30 (22.9%) |
| <input type="checkbox"/> | No, the study group(s) concluded with the evaluation | 40 (30.5%) |
|                          | Missing  | 61 (46.6%) |
|                          | Total  | 131 (100%) |

This is an example of how your overall results in MTE were reported:

See Appendix 5

29. Did you receive a results/feedback report following your participation on MTE? *Required*

|                          |  |             |
|--------------------------|--|-------------|
| <input type="checkbox"/> | Yes, I did receive my results/feedback report                            | 122 (93.1%) |
| <input type="checkbox"/> | No, I participated in MTE, but did not receive a results/feedback report | 9 (6.9%)    |
|                          | Total  | 131 (100%)  |

30. What was your general result in MTE? *Required*

|                          |                |            |
|--------------------------|----------------|------------|
| <input type="checkbox"/> | Insufficient   | 2 (1.5%)   |
| <input type="checkbox"/> | Sufficient     | 14 (10.7%) |
| <input type="checkbox"/> | Good           | 32 (24.4%) |
| <input type="checkbox"/> | Outstanding    | 21 (16%)   |
| <input type="checkbox"/> | Proficient     | 46 (35.1%) |
| <input type="checkbox"/> | Non-proficient | 7 (5.3%)   |
| <input type="checkbox"/> | Missing        | 9 (6.9%)   |
|                          | Total          | 131 (100%) |



31. With regard to your feedback report, please rate how informative each evaluation instrument is with regards to your areas for improvement:

| n=131             | Required    |              |              |               |              |
|-------------------|-------------|--------------|--------------|---------------|--------------|
|                   | N/A         | Not at all   | Little       | Moderately    | Much         |
| Student portfolio | 9<br>(6.9%) | 21<br>(5.7%) | 31<br>(8.4%) | 41<br>(11.2%) | 29<br>(7.9%) |
| Lesson plan       | 9<br>(6.9%) | 22<br>(6%)   | 27<br>(7.4%) | 44<br>(12%)   | 29<br>(7.9%) |
| Exam              | 9<br>(6.9%) | 20<br>(5.4%) | 34<br>(9.3%) | 40<br>(10.9%) | 28<br>(7.6%) |

32. Regarding your feedback report, to what extent do you agree or disagree with the following statements?

| n=122  | Required          |              |                            |               |                |
|--|-------------------|--------------|----------------------------|---------------|----------------|
|  | Strongly disagree | Disagree     | Neither agree nor disagree | Agree         | Strongly agree |
| My feedback provides detailed information concerning my teaching weaknesses                      | 18<br>(4.9%)      | 22<br>(6%)   | 24<br>(6.5%)               | 38<br>(10.4%) | 20<br>(5.4%)   |
| My feedback facilitates decision- making about what CPD I need to improve my teaching weaknesses | 17<br>(4.6%)      | 24<br>(6.5%) | 30<br>(8.2%)               | 37<br>(10.1%) | 14<br>(3.8%)   |
| I need counselling to appropriately interpret my results   | 25<br>(6.8%)      | 32<br>(8.7%) | 30<br>(8.2%)               | 24<br>(6.5%)  | 11<br>(3%)     |
| My feedback provides detailed information concerning my teaching strengths                       | 19<br>(5.2%)      | 22<br>(6%)   | 25<br>(6.8%)               | 36<br>(9.8%)  | 20<br>(5.4%)   |

|  |              |            |              |              |              |
|--|--------------|------------|--------------|--------------|--------------|
| My feedback report is coherent with what MTE attempts to grasp of my teaching practice | 25<br>(6.8%) | 22<br>(6%) | 27<br>(7.4%) | 30<br>(8.2%) | 18<br>(4.9%) |
|--|--------------|------------|--------------|--------------|--------------|

33. What sort of CPD do you need independently of your results (or lack of) in MTE? (Select as many as needed). Please select between 1 and 3 answers *Required*

|                          |   |            |
|--------------------------|---|------------|
| <input type="checkbox"/> | Characteristics of the most recent curriculum             | 63 (48.1%) |
| <input type="checkbox"/> | Academic content knowledge of my school grade             | 18 (13.7%) |
| <input type="checkbox"/> | Pedagogy/instruction of the curriculum in my school level | 39 (29.8%) |
| <input type="checkbox"/> | How to teach in multicultural settings                    | 51 (38.9%) |
| <input type="checkbox"/> | ICT skills for teaching and learning                      | 36 (27.5%) |
| <input type="checkbox"/> | Student discipline and behaviour problems                 | 48 (36.6%) |
| <input type="checkbox"/> | Student assessment practices                              | 47 (35.9%) |
| <input type="checkbox"/> | How to counsel students (e.g. future studies/career)      | 35 (26.7%) |
| <input type="checkbox"/> | How to teach students with special needs                  | 76 (58%)   |
| <input type="checkbox"/> | Psychological development of students                     | 58 (44.3%) |
| <input type="checkbox"/> | School administration and management                      | 55 (42%)   |

Percentages correspond to valid sample  $n=131$  (MTE participants) and are not mutually exclusive, hence, they do not sum up to 100%

33a. If you chose "other", please specify:

34. Have you undertaken CPD offered by the Secretary of Education after having participated in MTE? *Required*

|                          |       |            |
|--------------------------|-------|------------|
| <input type="checkbox"/> | Yes   | 67 (51.1%) |
| <input type="checkbox"/> | No    | 64 (48.9%) |
|                          | Total | 131 (100%) |

35. Mainly, why did not you undertake CPD provided by the educational authority after having been evaluated? *Required*

|  |  |            |
|--|--|------------|
|  | The CPD options do not cover my areas for improvement          | 6 (4.6%)   |
|  | My work schedule clashes with CPD timetables                   | 16 (12.2%) |
|  | Duties at home make it difficult                               | 3 (2.3%)   |
|  | No one has asked me to undertake CPD                           | 7 (5.3%)   |
|  | It is not mandatory because my result is satisfactory or above | 3 (2.3%)   |
|  | I am not interested in the CPD options offered                 | 10 (7.6%)  |
|  | I do not know where these CPD options are advertised           | 19 (14.5%) |
|  | Other  | 0          |
|  | Missing  | 67 (51.1%) |
|  | Total  | 131 (100%) |

35a. If you chose "other", please specify:

36. Apart from school staff CPD meetings, how many days did you spend in CPD [provided by the educational authority during the period 2016-2017](#)? NOTE: if you do not remember, please give an approximate number.

| N  | Minimum | Maximum | Mean  | SD     |
|----|---------|---------|-------|--------|
| 67 | 0       | 260     | 36.13 | 57.752 |

You have finished the questionnaire!

Are you undertaking CPD after your teacher evaluation? [Take part in an interview](#). Please leave an e-mail, Facebook, Twitter or telephone number. Interview participants will receive compensation of £20. Providing your contact details does not guarantee that you will be contacted for an interview. No information shall be shared with third parties.

I would like to participate in an interview: (provide your contact details) *Optional*

|  |       |             |
|--|-------|-------------|
|  | Yes   | 27 (20.6%)  |
|  | No    | 104 (79.4%) |
|  | Total | 131 (100%)  |

Thank you very much!

In order for your answers to be valid, please click the [finish](#) button.

Do you want to know more about this project? Please visit this [website](#). You can contact me on the following [e-mail](#), and my PhD supervisor, Professor [Sally Thomas](#).

## Appendix 10. Interview schedules

### Teacher interview

| RQ  | Item  |
|---|---|
|   | (Rapport) general personal information and circumstances under which he or she undertook MTE.   |
| RQ2: What are the strengths, weaknesses, and unintended consequences of 2015 & 2016 MTE in informing further CPD decisions and improving teacher performance?   | What do you think is the purpose of the feedback report?  |
|   | How useful was your feedback report to reflect on your CPD needs?   |
|   | How was the relationship between your feedback report and the CPD option that you undertook?  |
|   | Can you please tell me a strong and a weak point of your feedback report as a source of information regarding your CPD needs?   |
| RQ3: What CPD options did MTE participants need and take after the evaluation, particularly in 2016-2017?<br>RQ3a: Did perceptions of CPD needs after MTE vary according to teaching experience?<br>RQ3b: How does CPD in 2016-2017 compare to CPD before 2015-MTE regarding impact, pertinence, and quality? | Can you tell me more about the CPD course that you have undertaken after MTE? E.g. provider, means of provision, length. Were you given time off work to do this? What about relevance and impact to your practice? Can you provide an example? |
|   | In what way was this course the right one for you? Why? Examples?   |
| RQ2: What are the strengths, weaknesses, and unintended consequences of 2015 & 2016 MTE in informing further CPD decisions and improving teacher performance?   | What kind of barriers made it difficult or impeded your participation in CPD?   |
|   | Can you provide an example?   |
| RQ2: What are the strengths, weaknesses, and unintended consequences of 2015 & 2016 MTE in  | What impact has this course had on your teaching? What evidence can be provided to support those claims?. And who makes that evaluation?<br>Can you provide an example?   |

|  |  |
|--|--|
| informing further CPD decisions and improving teacher performance?<br>RQ3b: How does CPD in 2016-2017 compare to CPD before 2015-MTE regarding impact, pertinence, and quality?                  | What are the strengths and the weak points of the CPD that you were offered?<br>Can you provide an example?  |
| RQ3b: How does CPD in 2016-2017 compare to CPD before 2015-MTE regarding impact, pertinence, and quality?  | How would you describe the role of the provider (public; private; independent) as an element that has an impact on the quality of the CPD offered to the teachers? |
| RQ2: What are the strengths, weaknesses, and unintended consequences of 2015 & 2016 MTE in informing further CPD decisions and improving teacher performance?                                    | What is the relationship between your results in MTE and the CPD that you undertook?   |
|  | What CPD do you need now to improve your overall performance as a teacher?   |
|  | What is the relationship between your results in MTE and your teaching proficiency?  |
| RQ3: What CPD options did MTE participants need and take after the evaluation, particularly in 2016-2017?<br>RQ3a: Did perceptions of CPD needs after MTE vary according to teaching experience? | Besides the CPD provided by the Educational Authority, what else are you doing to improve your professional practice?<br>Can you provide an example?               |
| RQ2: What are the strengths, weaknesses, and unintended consequences of 2015 & 2016 MTE in informing further CPD decisions and improving teacher performance?                                    | As a concluding statement, what do you think about MTE as a means for quality education improvement?<br><br>Can you elaborate more about this?                     |

#### Headteacher and policymaker interview

| RQ  | Item  |
|---|---|
|   | (Rapport) general personal information and professional/institutional duties regarding MTE.   |
| RQ2: What are the strengths, weaknesses, and unintended | From an institutional viewpoint, how is the new policy on teacher evaluation helping teachers to improve their practice in their schools? |
|   | What is the institutional point of view with regards to the feedback report to inform teachers' decisions about CPD?                      |

|   |  |
|---|--|
| <p>consequences of 2015 &amp; 2016 MTE in informing further CPD decisions and improving teacher performance?</p>  | <p>We know that there are various options, for-free and commercial courses that prepare teachers for the evaluation,<br/>How is the participation rate in CPD after the results came up? Who are the most interested in undertaking these options?</p> |
| <p>RQ2: What are the strengths, weaknesses, and unintended consequences of 2015 &amp; 2016 MTE in informing further CPD decisions and improving teacher performance?</p> <p>RQ3: What CPD options did MTE participants need and take after the evaluation, particularly in 2016-2017?</p> | <p>In 2016 a tailored to fit CPD policy was announced,<br/>Are the CPD options currently available tailored fit to the teachers' needs? What role does the feedback report play in this regard?</p>  |
|   | <p>What can teachers do if they find the report difficult to interpret to decide what CPD undertake?</p> <p>Can you tell me more about the providers and the means of delivery that were decided for CPD?</p>  |
| <p>RQ3: What CPD options did MTE participants need and take after the evaluation, particularly in 2016-2017?</p> <p>RQ3b: How does CPD in 2016-2017 compare to CPD before 2015-MTE regarding impact, pertinence, and quality?</p>   | <p>How can we tell that MTE is improving the teachers' practices through CPD? Who evaluates it, and how? Which CPD seem more effective?</p>  |
| <p>RQ2: What are the strengths, weaknesses, and unintended consequences of 2015 &amp; 2016 MTE in informing further CPD decisions and improving teacher performance?</p>  | <p>Is MTE able to tell the teachers' strengths and weaknesses?</p>   |
|   | <p>What is a strength and a weak point of MTE as a means for quality education improvement?</p>  |

## Appendix 11. Survey distribution campaign: a summary

The following bullet points summarise the different steps before the distribution of the questionnaire.

- Designing an invitation using Powtoon
- Using Wistia as a video-host
- Verifying valid email addresses using HUBUCO
- Developing a campaign and email hub using MailChimp
- Creating a website using Squarespace
- Creating a personalised email account with G Suite

### Designing an invitation using Powtoon

PowToon was chosen as the animation platform to do a call to the online survey. The most compelling characteristic of this platform was their five steps script writing-guide to communicate with an audience successfully:

1. Make it clear to whom I am talking.
2. State a problem that they are experiencing.
3. Show expertise or solution to the problem.
4. Present the solution.
5. Call to action (PowToon, 2018).

The five steps to maximise engagement were used to draft a speech which later became images and scenes. A character representing the researcher was chosen among the options and a classroom as the ambience where the project would be presented. Voice recording was commissioned to a professional broadcaster in Colima to minimise costs. Music and transitions between scenes were decided to deliver a 70-second video called 'Voz de los maestros' [the teachers' voice] see figure 9.1. The video included the following key messages:

1. Addressing teachers familiar with MTE.
2. Stressing the lack of spaces to express teachers' views about MTE.
3. A presentation by the researcher and the aim of the study.
4. Presenting academic research as a better way to express their perspectives.
5. Inviting to click on the button that redirected them to the online survey.

Figure 9.1. Cover image for the survey campaign, created in PowToon.



### Using Wistia as a video-host

For the video to be distributed in a controlled way, that is, making it available to a target population and not to the whole internet community (e.g., videos posted in YouTube are accessible to most people), a commercial video-host was used. Free access to Wistia for three months came as a gift after having purchased a membership with PowToon. In the same platform, the video was edited by integrating opt-in forms for interviews and links to the online survey in different parts of the video; see figure 9.2.



Figure 9.2. Wistia opt-in features.



Wistia can record the number of times that a video has been played. It also provides statistics regarding viewers' engagement, whether clicks on links were made, etc. It also traces locations via the users' IP, date and time when the video was played. These data were not used to identify people who watched the video; however, the information was used to improve the distribution of the video in areas of Mexico where fewer people knew of it.

This video reached more than 900 views with 83% engagement, meaning that most viewers watched the video almost entirely. The videos were distributed via three different mediums; through Facebook groups and Twitter; as an embedded video in a dedicated website, and as a link embedded in emails. Next sections provide more information about email as a means of communication with teachers.

### Verifying valid email addresses using HUBUCO

Although there are not publicly available lists of teachers who participated in MTE, a national census collected school principals' emails and made the database accessible to anyone through a dedicated website (CEMABE-INEGI, 2014). The master dataset was filtered using SPSS to concentrate only on primary school principals' emails from public schools. Following cleaning,

more than 19 thousand emails were collected. A final review of these data was through a verification of authenticity, which is necessary to avoid high rates of bouncing, i.e., emails being rejected due to inexistence or misspelling. Bouncing is problematic as high rates are detected as spam leading to account cancellation. Therefore, all emails were sent to a UK-based fee-paying company called HUBUCO which in a matter of four hours sent back 13+ thousand emails which were deemed authentic and valid to communicate.

### Designing an email using MailChimp

A regular email account is allowed to send up to two thousand emails a day. Beyond that number, the account can be temporarily cancelled as suspected of distributing spam. Being mindful of data security protocols, MailChimp was chosen for communication with principals because its features were very similar to those of the Squarespace platform where the webpage was created (see figure 9.3). Furthermore, an opt-in form could be programmed to gather volunteers' emails in MailChimp, and the researcher's website, as shown next.

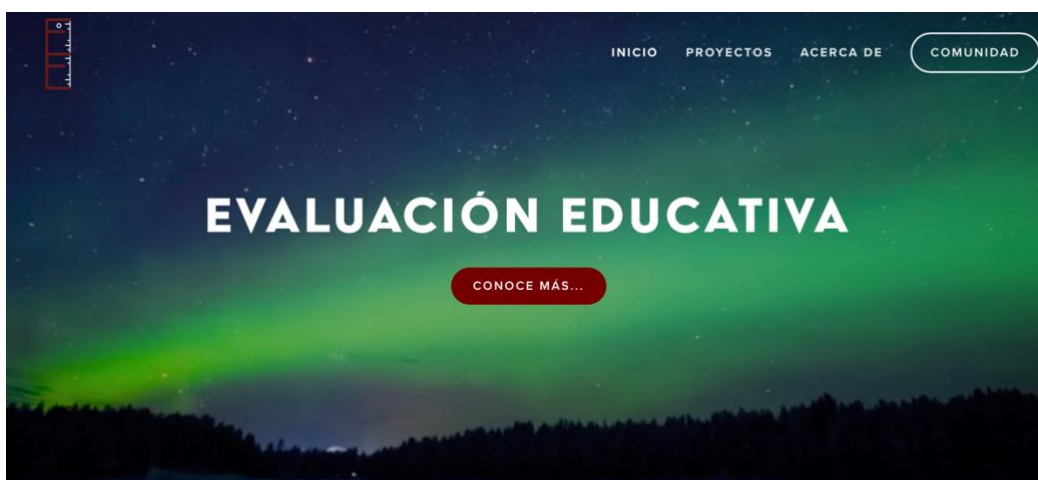
Figure 9.3. Email template created using MailChimp.



### Creating a website using Squarespace

A website *Evaluación Educativa* (EE) was created to enhance trust in the researcher. Having a site where people may be able to get more information regarding the research project, as well as links to the researcher's profile and emails was vital to gain trust, access and support (Madge, n.d.). Squarespace was used as the website host. See figure 9.4.

Figure 9.4. Evaluación Educativa Home page.



EE es un espacio de diálogo e intercambio

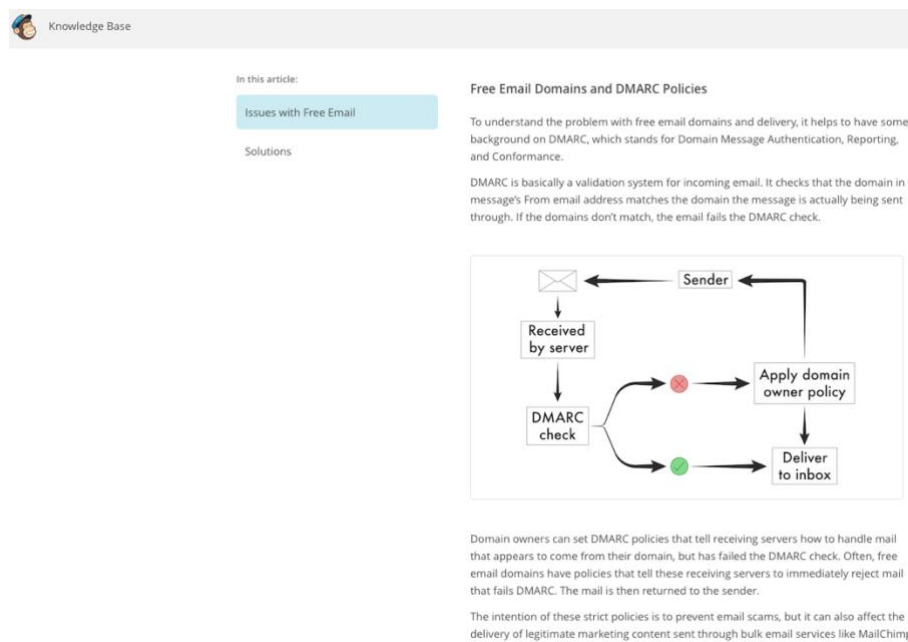
The web page had a section where a video was embedded, and an opt-in form to participate in an interview was available to visitors of the website. It was decided to use a .org extension to stay away from traditionally related commercial purposes of websites ending in .com. The extension .edu which would be more appropriate to the study is not available to individuals, but to educational institutions.

### Creating a personalised email account with G Suite

For the researcher's presentation to groups and gatekeepers, a subscription to G Suite was purchased. This fee-paying email account [cortez@evaluacioneducativa.org] was coherent with

the website and allowed the researcher to integrate it into MailChimp. Private email accounts do not have restrictions regarding sending emails as compared with free domain accounts, which reduces hard bouncing or rejected emails. See figure 9.5 from Mailchimp where these features are explained.

Figure 9.5. *Issues with free email domains.* Source: (MailChimp, 2018)



## Appendix 12. A comparison of the number of days in CPD in 2014-2015 and 2016-2017

Statistics regarding participation in CPD in 2014-2015 and 2016-2017 was not trustworthy, given the number of outliers in the data. To illustrate this, teacher participation in CPD for the academic year 2014-2015 ranged from 0 to 500 days. This period might have been misinterpreted like two years, instead of one year. Therefore, the maximum number of days spent on CPD during an academic year was capped for this exercise at 260 days; that is, five days a week multiplied by fifty-two weeks a year<sup>33</sup>. The same situation occurred with the number of days in CPD during 2016-2017, and hence, the same procedure was conducted<sup>34</sup>. Following the adjustments, participation in 2014-2015 was 34 days on average, and 36 days on average in 2016-2017. Previous research has reported a similar issue; for instance, in the TALIS-Mexico report, the average participation was 23 days, which Backhoff & Pérez-Morán (2015) considered to be high, as compared with eight days on average as reported among participants of TALIS in 2012-2013.

### Number of days teachers spent in State provided CPD

On average, participants spent 34 days on CPD (SD=57.13) during the academic year 2014-2015. This number is somewhat high if considering that a Diploma programme of 40 hours would be equivalent to 5 days of training. Thus, it is possible that similar to the TALIS-Mexico report (Backhoff & Pérez-Morán, 2015), the participants summed up the total 13 days of mandatory school staff meetings to their count, although they were prompted not to do so. Since 9% ( $n=33$ ) of the

---

<sup>33</sup> Four cases were addressed following this procedure. These participants stated participation in CPD as for 500, 360, 270 and 400 days. This was used as the maximum valid value given in theory a teacher seconded to training in higher education would spend week days as a full-time student.

<sup>34</sup> Two cases were subject to this procedure, i.e. one of them stated 360 days in CPD and the other 320 days.

participants took a postgraduate degree such as a master's or a PhD programme, arguably, these more extended courses might distort the average. To see how the number of days in CPD was affected by teachers who undertook a masters' or a PhD during 2014-2015, their counts were removed, resulting in 28 days in CPD (SD=50.59) on average. As seen, the number of days in CPD continued to be high in comparison to eight days of training on average among participants in TALIS (Backhoff & Pérez-Morán, 2015), which might be due to confusion or because these participants underwent various types of CPD not all addressed in the questionnaire. Therefore, the statistics regarding the number of days in CPD during 2014-2015 should be reviewed cautiously.

#### A comparison of the number of days spent in State provided CPD before and after MTE

The  $n=67$  teachers who took CPD after MTE spent 36 days (SD=52.752) in further training on average during the school year 2016-2017. To explore whether there is a difference between the number of days these participants spent in CPD during 2014-2015 and 2016-2017, a Related-Samples Wilcoxon Signed Rank Test was used. The non-parametric test indicated a non-statistically significant difference between the number of days spent in CPD during 2014-2015 (Md  $n=20$ ) and 2016-2017 (Md  $n=16$ )  $T = 462, p = .196$ . Therefore, for those who participated in CPD after MTE, participation in CPD in the two years was no different in this sample.

## Appendix 13. A summary of the codes integrating each theme

| RQ addressed | Theme  | Codes from teachers  | Codes from policymakers and headteachers  |
|--------------|--|--|---|
| 1            | [O] - CPD was scarce, and where available, it was related to MTE phases  | Courses unavailable; no preparation for MTE; only CPD for MTE available.   |   |
| 1            | [C] - School staff CPD meetings seem not fit for professional development                                      | Not well-trained personnel delivered CPD meetings.   | CPD meetings in cascade fashion; not well-trained personnel delivered CPD meetings.   |
| 1            | [O] - Guidance on MTE was left to non-state providers  |  | CPD neglected by the MoE; market-based CPD provision.   |
| 1            | [C] – Potential rationales concerning the perceived less pertinence of online teacher CPD                      | Local issues with the internet; ignoring where to find CPD online; lack of custom; online CPD is not engaging.                               | Lack of custom; online CPD is not engaging.   |
| 2            | [C] – MTE was perceived as an appropriate framework for teacher hiring and career improvement.                 | MTE facilitates salary improvement; opportunities to become a tutor; clearness on who gets rewards; do not need the union to become teacher. | Salary improvement within the governments’ budget; young teachers get promoted; clearness on who gets rewards.                  |
| 2            | [C] - The procedures of MTE, including the feedback report, were perceived as appropriate to enhance teaching. | MTE phases can tackle teacher performance; MTE leads to CPD.   | MTE does not lead to dismissal; MTE lead to CPD.  |
| 2            | [O] – MTE contributes to enhancing the teachers’ professional status.  |  | MTE leads to enhancing teachers’ professional status.   |
| 2            | [C] – Some aspects that MTE might have neglected due to a lack of consultation                                 | Unequal preparation to sit MTE; lack of knowledge of ICT; school context neglection.   | Unequal preparation to sit MTE; lack of knowledge of ICT; limitations to address classroom practice; school context neglection. |
| 2            | [C] – Issues related to the feedback report and its connection with CPD.                                       | The reports are standard; outstanding unclear about further CPD; no wat to appeal the result; lack of follow-up.                             | The reports are standard; missing reports lead to fail in MTE; lack of follow-up.   |
| 2            | [O] – The little consideration of teachers’ experience in MTE  |  | MTE does not differentiate by teaching experience.  |

|   |   |   |   |
|---|---|---|---|
| 2 | [O] – Lack of transparent management of MTE's budget and posts allocation   | Opacity in the use of money; opacity in the hiring of teachers.   |   |
| 2 | [C] – Potential negative impacts on the teachers' wellbeing   | Consequences of MTE and health; issues at testing the centres; police presence; issues on the allocation of MTE teachers. | Unofficial channels and MTE; consequences of MTE and health; police presence; issues on the allocation of MTE teachers. |
| 2 | [C] – Teacher preparation for MTE via study groups: rationales and actors   | Study groups prepare teachers for MTE.  | Study groups prepare teachers for MTE; are a form of professionalisation; their role is formative.                      |
| 2 | [C] – The general result in MTE as the most important goal teachers followed  | Perceived mismatch between MTE and performance; individualism; cheating; no incentives follow CPD.                        | No incentives follow CPD.   |
| 2 | [O] – MTE might contribute to a type of inequality  |   | MTE reproduces inequality.  |
| 3 | [C] – Rationales underpinning teachers' and headteachers' decisions regarding participation in formal CPD after MTE | CPD improves education; took it for personal benefit; formal CPD mismatch feedback or self-perceived needs.               | CPD for self-development; CPD to avoid punishment.  |
| 3 | [C] – Introducing tutors has not been as successful as expected   | Teachers with <i>insufficient</i> results were not allocated to a tutor.  | Calls for tutors have not been as successful.   |
| 3 | [C] – Contesting perspectives concerning market-based CPD quality   | Market-based CPD is excellent.  | Non-official CPD providers are not fit for purpose.   |
| 3 | [O] – Potential conflict of interest concerning teacher advising for MTE  | Personnel from the Secretariat of Education might be making profit; evaluators make profit.                               |   |
| 3 | [O] – CPD after MTE does not lead to salary improvement   | Take-up in CPD is not incentivised.   |   |
| 3 | [O] – Two approaches to informal CPD after MTE  | Self-preparing for future MTE; self-learning to teacher better.   |   |
| 3 | [C] – Two views of the positive impact of CPD following MTE   | The students are positively impacted by CPD after MTE.  | Parents see the impact of MTE.  |



|   |  |  |
|---|--|--|
| 3 | [O] – Online learning is gaining users, but scepticism continues | Online CPD is appropriate when the distance impedes face-to-face; allows to work at a pace; scepticism about online. |
|---|--|--|

Note: themes in table enlisted as they appear throughout the findings chapters.

## Appendix 14. Ethical considerations of this research

**Name(s): Artemio Arturo Cortez Ochoa**

Proposed research project: **Teacher evaluation and Continuing Professional Development: Policies to improve the Quality of Education in Mexico**

Proposed funder(s): The Mexican National Council for Science and Technology (CONACYT in Spanish)

Discussants for the ethics meeting: **Israel Moreno and Denise Zihba**

Name of supervisor: Sally Thomas and Elizabeth Washbrook

Has your supervisor seen this submitted draft of your ethics application? **Yes**

### Research project summary:

This PhD research explores primary school teachers' perspectives about mandatory Teacher Evaluation and Continuing Professional Development (CPD) for Quality Education improvement in the Mexican context. The study aims to investigate teachers' —and other stakeholders, e.g. principals, superintendent s, and decision-makers— perceptions of the strengths, weaknesses and unintended consequences of policy on Teacher Evaluation and CPD.

A sequential Mixed-Methods Research (MMR) approach will be used, as well as Pragmatism as a philosophical stance. First, an online survey will be distributed via online social networks (e.g. Facebook and Twitter) to investigate three aspects. 1) Prior experiences with CPD and impact on the teachers' practices; 2) Validity of evaluation results and feedback for CPD decision-making; 3) Current situations regarding CPD offered by the authority following teacher evaluation results. Second, semi-structured interviews with 10 teachers and 5 stakeholders as above who completed CPD after their evaluation. This is to gather in-depth data regarding the fit-for-purpose of professional development options for teaching improvement. The interviews might be conducted at a distance (e.g., Skype or over the phone), or face-to-face depending on the specific situation and location of the participants. Both datasets will be used complementarily when reporting the findings. The results of this research will contribute to the existing literature on Teacher Evaluation and CPD for Quality Education improvement, especially concerning high-stakes policies with consequences for individual teachers. This, in turn, can inform present and future policy developments in this regard not only in Mexico but also in other contexts where similar initiatives take place.

The following topics were discussed with two PhD researchers.

### Researcher access/ exit

The survey will be distributed via online social networks such as Facebook and Twitter; gatekeepers will be contacted in advanced for clearance. Provided the researcher received permission to post either on walls of Facebook groups or on Very Important People's pages on Twitter, accompanying the URL address potential participants will see a message like the following:

Are you a public primary education teacher with three years of working experience or more?

My name is Artemio Cortez, I am a PhD student at the University of Bristol, UK. I am conducting a research project about Mexican Teacher Evaluation, and I would be very thankful if you undertook the following **anonymous** survey. This is your opportunity to make your perspectives about MTE visible. This survey is targeted at primary school teachers and it does not matter if you have not been evaluated yet.

At the beginning of the survey, the participants will see the following screen:

#### Mexican Teacher Evaluation survey

Dear teacher,

Thank you very much for your contribution to this research project. This questionnaire is aimed at collecting your views about two aspects:

1. Your experiences undertaking Continuing Professional Development prior to Mexican Teacher Evaluation
2. Your recent Teacher Evaluation process in case of having participated

**Note:** If you have not been evaluated yet, you can still undertake this survey.

#### Who is doing this and for what purpose?

My name is Artemio Cortez. Like you, I am a public education teacher currently doing a PhD in Education at the University of Bristol, UK. Your responses will contribute to a study about MTE from the perspective of teachers. Therefore, I appreciate the time that you dedicate to this survey.

I invite you to fill out this questionnaire freely and confidently as your information will be treated anonymously and confidentially. Furthermore, all data emerging from this survey will be securely stored in the virtual facilities of the University of Bristol. You are not obliged to provide your name or any other personal information.

Your participation is voluntary and free, hence, if you want to withdraw now or at any point during the questionnaire you can do so by closing this navigation window. However, if you want to continue the survey in another time, you can do so by clicking the respective button. Completing this survey will take you 20 minutes approximately, and you can choose to participate in an interview by providing your e-mail or telephone number at the end of the survey.

Throughout the questionnaire I propose the use of the following acronyms:

MTE Mexican Teacher Evaluation

CPD Continuing Professional Development

Please agree to the terms and conditions to proceed to the survey \* Required

Please select 

The questionnaire is self-administered and guides the respondent towards the end using several navigation pages; also, the participant is free to withdraw from the survey by exiting the web page, or can decide to continue the questionnaire in another time by clicking on the finish later button. One of the downsides of online surveys is that the researcher has no control over who answers the questionnaire. Although this study is not free from this limitation, one of the strengths of the instrument is the topic that it strives to address. Participants who authentically teach in public primary schools may be more attracted to respond to the survey than any other individual for whom MTE and CPD are rather alien topics to their interests.

The participants will be invited to voluntarily provide an e-mail address or contact number if they are willing to participate in an interview. From this pool of teachers' contact details, 10-12 individuals will be purposively sampled based on their evaluation results (i.e. unsatisfactory; satisfactory; good; outstanding). Participants of an interview will be asked about their experiences undertaking CPD provided by the educational authority following their evaluation results. Teachers are free to reject to participate, as well as to withdraw from the interview any time they decide. This information will be provided to them as convenient, in writing or verbally. Differently to the participants of the survey, interviewees will be asked whether checking back themes or transcripts elaborated afterwards interview is OK for them. No clearance from school head teachers or any other authority will be needed unless interviewees prefer to be interviewed within a school premises. In such a case, the immediate authority of the teacher will be consulted prior to proceeding with the interview.

### **Information given to participants**

With both methods (the questionnaire and the interview), the participants will be presented with an information sheet, as well as a consent form to be cleared before proceeding. Most importantly, the potential participants in either of the data collection methods will be informed their right to freely withdraw the research anytime they decide. Participants will also be informed that their information will be treated confidentially and anonymously, as well as the means of data storage.

Whereas questionnaire or interview, the participants will know who to contact in case of doubt or to raise a concern about the study. For instance, the researcher and the superintendent e-mail addresses.

### **Participants right of withdrawal**

The participants' right to withdraw is guaranteed in the questionnaire because they have control on the progress and the responses provided through the web site. They might decide to finish later, or just to leave the research by closing the web page on their computer. In the case of the interview, this right of the participant will be made known at the beginning of the conversation and if dropping-out is decided, they will be free to do so without further questioning their reasons. Participants can decide to participate or not in a member-checking stage of the research.

### **Informed consent**

As explained above, in both cases participants will know prior to commencement what is the study about and their right to not participate, or to leave the research if decided.

### **Complaints procedure**

[Already mentioned above]

### **Safety and well-being of participants/ researchers**

One of the main concerns in this study is to ensure the anonymity and confidentiality of participants. In the survey, teachers might input their contact details and will be part of the database in Bristol Online Surveys (BOS). Since the account where the survey was designed is protected with a password, the information of the participants will be securely stored and no one apart from the researcher may have access to the database.

Regarding the interview, teachers will be contacted individually and asked to conduct the interview in a place that is private and quiet to ensure confidentiality of their responses. For example, if the interview is held using Skype, the researcher will ask the interviewees to choose a location where others cannot interrupt or listen to the conversation. In the interview transcripts, the names of the participants will be anonymised using pseudonyms and all information that can lead to identification of individuals will be stored separately. The remote desktop of the University of Bristol will be preferred to keep data securely saved.

The researcher will assess the possibility to conduct face-to-face interviews in Mexico, but keeping in mind his personal security. There might be places and situations not recommended for the researcher's presence in which case, different communication alternatives will be negotiated with the participants.

### **Anonymity/ confidentiality**

[Already mentioned above]

### **Data collection and data analysis**

Data from the survey will be analysed using SPSS statistical package and checked for anomalies such as skewness, or corrupted entries. Decisions about missing data or weighting if needed will be considered and appropriately acknowledge in the final dissertation.

Regarding the interview transcripts, the researcher will strive to get back to the participants to review themes in order to enhance the quality of data analysis. Likewise, this review will be accompanied by recurrent review with colleagues to ensure that the findings are coherent with the aims of the study.

### **Data storage**

[Already mentioned above]

### **Data Protection Act**

This University of Bristol ethics guidelines used have been strengthened with those recommended by the British Education Research Association (BERA). The UK's Data Protection Act 2003 will be adhered to. According to these afore-mention guidelines, as well as those from Mexico, the information provided by the participants will not be shared with third parties or entities in any way, and their identities will be protected with pseudonyms. Any data that might lead to the identification of a participant will be stored separately and safely kept.

### **Feedback**

The researcher will consult interviewees whether they are willing to participate in further stages of the research, particularly to help member-check the themes proposed by the researcher concerning their own transcript.

### **Responsibilities to colleagues/ academic community/Reporting of research**

The researcher commits to produce a quality PhD research that is worthy and respectful of the participants' well-being. The outcome of the study will be presented to the examination panel for their evaluation once it is done according the schedule proposed in the progression document.

## Interview consent form

Dear teacher,

Thank you very much for having accepted to participate in this interview. My name is Artemio Cortez, I am a primary school teacher in Mexico, but currently studying a PhD in Education at the University of Bristol. The topic of my research concerns Mexican Teacher Evaluation (MTE) and Continuing Professional Development (CPD) for quality education improvement.

I will formulate some questions regarding your experience undertaking MTE and CPD to address two topics mainly:

Your perspective about how informative is the feedback report to inform your areas for improvement, and/or specific needs of CPD.  
The characteristics of the CPD that you undertake/undertook and how well this training addresses your professional development needs.

Your participation is voluntary; therefore, you are free to withdraw the research any time during the interview if you prefer to do so. Likewise, if after having concluded the interview you decide that the information provided is removed from my database, please just let me know about it. At some point during data analysis I will get back to you to review my interpretation of your quotes. You are not obliged to participate in this part of the research, however this stage is to provide more rigour to the investigation.

Any audio-recordings, texts or data that you share with me will be stored in a virtual hub protected with a password and your name will be given a pseudonym. Any personal information and interview

outputs will be stored separately to avoid identification. If you prefer not to have a pseudonym please let me know about it in advance. I will be the only person who has access to your data.

Your interview transcript, as well as other participants' transcripts will be analysed and the findings will be used primarily to integrate my PhD thesis. Nonetheless, the findings of this research might also be published on academic papers or conferences.

If you have a question regarding this study, please send me an e-mail: [artemio.cortezchoa@bristol.ac.uk](mailto:artemio.cortezchoa@bristol.ac.uk). If I am not able to solve your query, please feel free to write to my supervisor, Professor Sally Thomas: [S.Thomas@bristol.ac.uk](mailto:S.Thomas@bristol.ac.uk).

- I have read what is this study about and what is my role in this interview
- I understand that my voice will be audio-recorded for further text transcribing
- I understand that I might decide to help the researcher review his interpretation of my quotes
- I understand how my information will be treated and stored
- I accept to participate in this research by being interviewed about my experience with MTE and CPD.

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[participants signature]

## Appendix 15. Informal CPD correlations

| Variables  | 1      | 2      | 3      | 4      | 5      | 6 |
|--|--------|--------|--------|--------|--------|---|
| 1 Self-learning, such as e-learning (online)                 | —      |        |        |        |        |   |
| 2 Consulting academic research                               | .537** | —      |        |        |        |   |
| 3 Conversations with fellow teachers about education matters | .332** | .314** | —      |        |        |   |
| 4 Teachers' study groups                                     | .334** | .302** | .415** | —      |        |   |
| 5 Use and consult of commercial materials or bibliography    | .470** | .327** | .392** | .299** | —      |   |
| 6 Education research within the school or classroom          | .328** | .393** | .448** | .513** | .329** | — |

\* $p < .05$ . \*\* $p < .01$