



MenSI

Mentoring for
School Improvement

D5.1 Final report: Documentation and analysis of mentoring practice *(Parts A & B)*

27 July 2022



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Introduction

WP5 includes two major reports:

- 1) Deliverable 5.1 Report on Mentoring Activities (M20), a report that summarises and analyses activities in the different types of mentoring clusters, highlighting innovative, effective and scalable strategies, practices, processes and digital tools used;
- 2) 2) D5.2 Report: Effective whole school mentoring: evidence from the MenSI project (M21). This is a key output of the project, aiming to document and analyse the types of whole-school mentoring and their value, as evidenced in the project.

In this report, Deliverables 5.1 and 5.2 are presented as a single document, in order to illustrate their mutual inter-dependence and the ease accessibility. The overall requirement of Work Package (WP5) is to provide a 'documentation and analysis of mentoring practice'. To do this a set of associated tasks were undertaken:

Task	Description
5.1.1	Monitoring and Observation Methodology and Timetable
5.1.2	SELFIE Baseline Survey
5.1.3	Interviews with Advanced school Practitioners (ASP)
5.2	Monitoring & Mentoring Activities (Cluster Diaries / Interviews / Examples)
5.3	Field Visits to Advanced Schools (AS)
5.4.1	Assessing Progress in Schools - follow-up survey
5.4.2	Effective Whole School Mentoring - assembling findings

The outcome of these tasks is reported in the current deliverable in a composite way, in order to reflect the synergy of focus between them. The Report is divided into 3 sections, accounting for the two WP Deliverables: D5.1 - Report on Mentoring Activities (PART A and PART B) and D5.2 - Report on Effective Whole School Mentoring (PART C). However, PART C will be added after the final phase of analysis (**in October 2022**). It should be noted that considerable synergy exists between all data-components of WP5 and that efforts have been made in reporting project activity in each of the 3 parts (A, B and C) of the WP to reflect the way that the evidence generated should be viewed as a coherent whole. The final submission (D5.2) will also provide updated data for PARTS A & B.



Part A: Conceptual approach and methodology

Conceptual approach

Five principles have underpinned the conceptual approach adopted in WP5. They are all intended to enable the collection of credible data for MenSI which authentically represents the experiences of those most closely involved in the Advanced Schools and each of the schools forming the cluster groups in the partner countries.

Firstly, data collection has a primary intention of enabling full practitioner-involvement. This is built around a collaborative, shared approach which enables project participants to gain professional benefit throughout their involvement in MenSI. This has been frequently acknowledged during the last 10 years, with Tatto and Furlong (2015) stating that 'Teachers and students thrive in the kind of settings that we describe as research-rich, and research-rich schools and colleges are those that are likely to have the greatest capacity for self-evaluation and self-improvement'.

Effective and impactful research which involves teachers and other practitioners recognises the contextual conditions that form the background to research activity in schools. This includes the limitations and constraints that can be encountered in settings where there are resource or time pressures, a feature of practitioner research that has been acknowledged by Leat, Reid & Lofthouse (2015) who argue that a failure to build in the teacher's lived experience undermines agency, trust and collaboration.

Supporting sustainable 'communities of practice' over an extended period of time post-project, so that outputs and outcomes are able to be transferrable and future-proofed, is a major challenge for school-based, action research (Kember, 2002). The MenSI project adopted a shared approach to high-quality data generation, in which a negotiated and mutually agreed process of planning and organisation took place. This fostered mutual trust and engagement, so that both individual and institutional benefits became evident.

All successful research and evaluation is supported and informed by inputs from an extended learning community. The evidence obtained during the MenSI project was informally shared, on a



confidential and anonymised basis, with an informal 'reference group'. This comprised both academic researchers and school-teachers from 3 countries (England, Australia, Greece). The 4 participants had substantial experience in mentoring, change and innovation and the way that qualitative data contributes to 'ownership' and the growth of learning communities in schools. Its core purpose was to act as a discussant and 'sounding board' in the analysis tasks of WP5.

Finally, data collection was informed by the adoption and application of a set of explicit ethical procedures. These were generated to reflect and embed the protocols and requirements of the European Code of Conduct for Research Integrity (ALLEA, 2017). The application of its key features - including confidentiality, informed consent and a retrospective right-to-withdraw were fully embedded in the research plan. Explicit statements were agreed regarding data-protection: subsequent to analysis, all audio-recordings were deleted from recording devices and computer-based hard-drive memory and hard-copies securely destroyed.

Overview of methodology

The underlying principle in the monitoring and observation methodology adopted in WP5 are those which inform mixed-methods research (Cresswell, 2007). This has become a feature of educational research in schools across diverse European and international contexts (see, for example, McKinley, 2019; Noble, E., Ferris, K., LaForce, Melanie & Zuo, 2020). It is especially regarded as helpful in ensuring that credible and authentic voices of research participants are heard (Camerino, Valero-Valenzuela, Prat, Manzano Sánchez & Castañer, 2019). Moreover, it allows for naturalistic capture of the complex real-world interactions in schools (Ponce & Maldonado, 2015), whilst retaining methodological and scientific integrity (Creamer, 2016).

These benefits align the approach well with the scientific principles underpinning MenSI's data collection phase and also to its commitment to stakeholder engagement and fostering the enhancement or emergence of 'communities of professional practice' (Denscombe, 2008; Elster, 2010) within and between school settings. The data derived from these efforts are frequently characterised as contributing to what is expressed, in positive terms, as 'messy research' (Mellor, 2001) and as 'patchworks' of practice (Higgins, Madden, Berard, Kothe & Nordstrom, 2016). This is also in keeping with the principles of the MenSI mode of enquiry, which seeks to push the boundaries in the way that school-centred data are captured, acknowledged and then used to add value to professional development.

The approach to monitoring and observation comprises 4 ways of collecting evidence, with associated instruments and analytical approaches. These enable a multi-layered, three-dimensional depiction of school-level activities and reflect the involvement of a diverse range of individuals in what is recognised as a 'community of professional practice' (Wenger, 1998). Such an approach brings process and output benefits for all involved. This methodological orientation and the respective instruments to be used are now described.



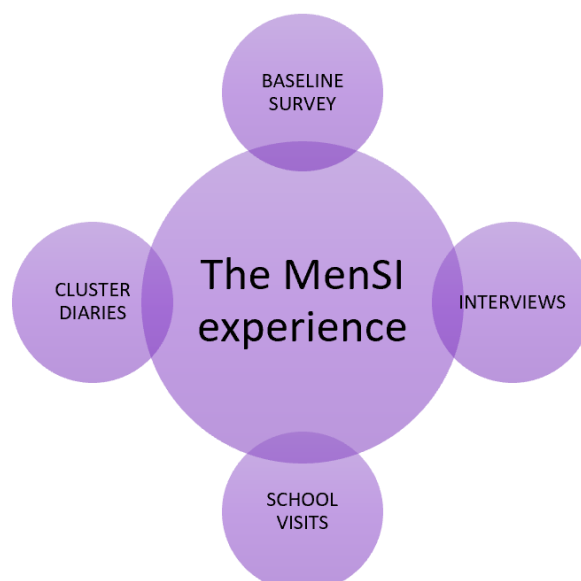
The methodology is therefore characterised as a 'mixed methods' approach. Within this the emphasis is placed on qualitative data, enabling the 'voices' of key MenSI participants to be at the forefront of the evidence base that has been generated. The approach taken also recognises that it reflects an 'action-based' research enquiry (Kemmis and McTaggart, 2005). This is an essential component in professional reflection by teachers (Carr and Kemmis, 1986), which is vital to innovation and change in schools, as highlighted throughout the project being reported.

The data generated exemplifies practices in schools, both in providing concrete illustrations of mentoring practices and the commentaries from teachers, head-teachers and other stakeholders in this process. As noted previously, practitioner involvement is crucial to secure 'whole-school' engagement in the change process. The data-generation effort therefore emphasises peer-to-peer dialogue which is a major contribution to the 'community of practice' which is a core mechanism in enabling innovations which are inclusive and sustainable.

The mixed-methods approach adopted places great emphasis on data correlation via triangulation (Erzberger & Prein, 1997). This way of working is regarded as a methodologically credible way of analysing evidence generated in a mixed-methods study (Carvalho and White, 1997). It also retains the critical emphasis on 'voice' so that the real-world experiences of the MenSI stakeholders retain prominence in the project account. Utilising such first-hand accounts is regarded as an important contributor to making research findings accessible to wider professional and public audiences (Kools & Stoll, 2016).

Research instruments

Four sources of evidence enabled a picture to be developed of the 'MenSI experience' - which is a phrase used to capture the way that participating Advanced Schools and their clusters responded to the project's intention to mainstream innovation by spreading the advanced ICT-based teaching practices to a wide circle of schools in each country partner location.





The following section describes the 4 instruments as presented to the MenSI schools and the National Coordinators.

(a) Baseline Survey

As stated, the MenSI project carries the strapline "mainstreaming innovation by spreading the advanced ICT-based teaching practices to a wide circle of schools". The instruments developed to monitor and observe the progression of schools within the project seek to do this by undertaking progress-monitoring and observation across 4 'experience domains': these comprise whole-school-, teacher-, mentoring and student- experience aspects of MenSI. The overarching dimensions of ICT (which is referred to variously as digital technology or digital learning) and 'Policy Challenges' (referring to those contemporary or emergent issues at a pan-European or Partner Country context) are recognised as informing and contributing to the operational context of schools: these underpin consideration of each experience domain.

The 4 'experience domains' reflect the content of the SELFIE tool. In addition, baseline questions have been informed by the literature review of school-to-school mentoring in a European perspective, an output of WP2. The same themes echo those in the original MenSI proposal. Each has either direct or inferred connection with the adoption of ICT practices in schools. Domains A, B and C are directed to teachers and educational support staff in schools. Domain D is addressed to students only, but provides data which intersects with those secured from the other three.

The questions within each domain are not intended to offer comprehensive coverage of every aspect of the 4 domains selected, or the individual themes embedded within each.

In all 40 items have been identified, comprising Whole-School Experiences (10 Questions), Teacher Experiences (10 questions), Student Experiences (10 questions) and Mentoring Experiences (10 questions).

All domains include 4 question response-types, which have been selected to help maximise data-generation whilst securing greater participation, interest and an easier survey-taking experience by participants (Singleton & Straits, 2009). The questionnaire thus comprises items which require rating, open-ended, multiple-choice and binary (yes/no) responses.

The composite question bank, as an entity, has been assembled in order that, in optimising participant engagement, it will provide both baseline metrics and an initial assembly of brief narrative responses which address MenSI's principal focus.

It has also been developed in order to take account of widely recognised contextual stressors linked to practitioners working in schools. These have been widely acknowledged as impacting negatively on teacher innovation and performance, as demonstrated by Yong Tan (2014) in his study of challenges and constraints based on data derived from PISA results. These issues have been reported for over 20 years in European and wider international contexts (Creemers et.al., 1998).



In respect of data collection from schools, the same negative contexts impact on the preparedness of practitioners to participate in those activities which they view as either irrelevant to, or inconsistent with, their day-to-day work with students. In spite of the emergence of practitioner research as a core feature of European professional practice (as illustrated by the rapid emergence of bodies such as the European association for Practitioner research - EAPRIL), this reluctance to engage has been increasingly noted and linked to work-based stress experienced across the profession in many countries (Eurydice, 2021). This current report, for example, suggests that over 53% of teachers feel they have too much non-pedagogical work to do.

The student-orientated section of the questionnaire addresses similar concerns and is fully aligned with the additional requirements relating to child-protection and personal safety.

The question bank has therefore been developed to take account of these conditions, whilst providing a reliable and authentic initial 'downview' of the experiential engagement of school systems, teachers and students. The initial survey has been limited in its size, directly related to teacher's core duties, and - in its pilot mode (3 practitioners in UK schools) - has taken only 20 minutes to complete. This outcome from testing the instrument in real-world conditions has confirmed that it fulfils the operational and ethical requirements set out in MenSI's agreed protocols.

The survey questions connect with the observation template being generated for school visits, by using similar thematic fields to explore ground-level practices in mentoring using digital approaches.

Distribution, collection, storage, use and disposal of all data from the questionnaires will be subject to the Code of Ethics enshrined within the project's Data Management Plan (April 2021) and which reflects the content of European Code of Conduct for Research Integrity (ALLEA, 2017).

(b) Semi-Structured Interview

Concurrent with the questionnaire survey of whole-schools, teachers and students a series of online interviews will be conducted with school leaders and/or lead practitioners. Both instruments contain important thematic synergies. The interviews will allow an extended conversation based on these aspects and illustrated by detailed ground-level, user-generated narratives.

Evidence of the importance of school leaders and lead practitioners as determinants of 'school culture' or 'climate' has become well-established in the international research literature (Hallinger, 2018; Morris, Lummis and Lock, 2019). It has also been increasingly recognised that this group of professionals are integral catalysts in the process of change and transformation in educational settings (Spinks & Caldwell, 2013; Bannister, 2014). The importance of understanding their views and perspectives regarding ICT and mentoring in promoting effective learning and teaching are thus of great significance to the MenSI project.



Interviews will take place in 6 Advanced Schools (1 from each partner country). The selection will be undertaken by the respective National Coordinator in each country.

The purpose of these 1:1 interviews is to determine the key characteristics of schools which define them as 'leading-edge' schools in the field of mentoring, associated with how they have established and enhanced a whole-school approach to ICT deployment and use.

The approach favoured is purposive, in that individual National coordinators, having integral knowledge of their own country schools and their profiles, are best positioned to identify the school which can offer the most in-depth, 3-dimensional picture regarding the project's primary focus.

The interview will be based on a semi-structured schedule. Its content is based in part on adapted elements of the school questionnaire. However, in keeping with the methodological rationale underpinning this approach, which has become securely recognised by educational researchers (Carruthers, 1990; Briggs, A., Coleman, M. & Morrison, M., 2012), topic-variation within the core themes of the interview can take place. In addition, some open-ended questions, requiring respondents to express qualitative opinion or explore their professional beliefs, are included.

Analysis of the narrative data emerging from these will be utilised elsewhere in MenSI to progress the project objective of identifying areas of policy and practice where mentor-supported actions have potential to support schools who are at a less advanced stage in their application of ICT.

In addition, these practitioner accounts will contribute extensively to the development of illustrative 'case studies', which will comprise accessible and user-friendly mixed-media accounts of mentoring activities in a range of project schools.

Distribution, collection, storage, use and disposal of all data from the questionnaires will be subject to the Code of Ethics enshrined within the project's Data Management Plan (April 2021).

(c) School Observation Visit

The observation visits to schools will be undertaken by WP5 project partners Brunel University will undertake up to three observation visits to one or more Advanced School in each partner country in order to more fully document their approach to mentoring less advanced schools and investigate relevant issues emerging from the interviews (Task 5.2) and from analysis of the cluster diaries generated in WP4, based on an outline provided by WP5 project partners (see iv, below).

To ensure that as diverse a range of reporting opportunities is offered, the observation visits are based on 'context-sensitive enquiry' (Herranen, Kousa, Fooladi and Aksela, 2019). This approach enables flexibility in the way that data are collected, whilst also ensuring that interruption to school routines are minimised. The latter demonstrate MenSI's 'responsibility to stakeholders', as outlined by Reeves (2000). Visits can include observation of a regional hub face-to-face meeting or training session and a visit to a less advanced school mentored by the Advanced School to assess how they are benefiting from the mentoring process. Visits to national settings can also include observations of classroom practice, interviews with teachers, head teachers and support staff as appropriate as



well as opportunities to see practical resources associated with teaching and learning and ICT. Video conference interviews with key actors in the mentoring will take place in addition to the visits.

The visits and interviews will be described and analysed in short reports in a standard format defined by the WP coordinator. The conclusions drawn from the observation visits will be tested with partners and school representatives in a workshop in month 21 (task 3.3) before a final deliverable on this work is submitted.

Observation visits in particular are to be planned so as to minimise disruption to school routines and to be mindful of any increase in teacher workload.

Distribution, collection, storage, use and disposal of all data from the questionnaires will be subject to the Code of Ethics enshrined within the project's Data Management Plan (April 2021)

The content of the school observation visits will replicate content-elements of instruments (i) and (ii) enable schools to illustrate their work across all aspects of teaching and learning to illustrate the role of ICT. The outline arrangements for visits are described in the Briefing Note for Schools and National coordinators.

The face-to-face, interactional nature of the school observation visits requires that clear expectations are established in order to ensure that the process is straightforward and that expectations regarding all its participants are made clear. In summary, these can be outlined as follows:

Ministries of Education

Participating ministries will officially sanction and support the participation of Advanced Schools and other schools within their jurisdiction. They will provide any new/additional country reports or documentation (subject to any embargo) to assist in the development of an accurate and authentic overview of ICT in schools across their jurisdiction.

National Coordinators

The role of mediation between the WP5 team in MenSI who are to undertake the school observation will be a key function of each National Coordinator. They will identify the participating school and its named contact-person. Additionally, they will identify, in collaboration with the school, the key participant/observation visit host(s). The National Coordinator will, after discussion with the WP5 observation visit team, inform the school of an outline template for the visit.

Schools

In order to provide a comprehensive picture of the way that the school functions in respect of the project's focus, it is suggested that a set of pre-visit information is supplied. This can potentially be partly based on MenSI's 'Invitation to Participate' pro-forma. In addition, provision of the school's web address will enable the MenSI observation team to obtain important contextual detail regarding school policies and its overall approach to teaching and learning. Based on an outline



observation visit template, the school will construct a programme for the visit. This will enable the school to highlight and exemplify key aspects of its practice and to ensure that opportunities are provided for the visit team to be immersed in those aspects of classroom or whole-school practices which the school self-identifies as being of significance.

MenSI Observers

MenSI observers will follow all required school protocols, especially those regarding child-protection, health & safety regulations and compliance with emergency procedures. In respect of the former, all MenSI participants will provide as required a copy of their child protection certification from their country-of-origin. All MenSI observers will operate according to the Code of Ethics defined by the project. This relates in particular to aspects of confidentiality, anonymity and wider aspects of data protection. These are embedded within the MenSI's Data Management Plan (April 2021), and are available on request.

(d) Cluster Diary

Diaries, maintained by teachers and other stakeholders, have been part of educational research for many years (Altrichter, Posch, & Somekh, 1993; Smith & Sela, 2005). They enable insights into the ways that learning and teaching are scaffolded, whilst also offering opportunity for critical reflection and deep professional insights. As such they also promote self-learning (Johnson, 2007) and as such add significant value to the research encounter. The latter is an important component in MenSI's approach to promoting greater engagement by professional communities in schools.

Recommendations for MenSI's diary structure are based on an established, field-tested format which has emerged from INQUIRE, a three year project (2010-2013), within the 'Science in Society' Programme of the European Commission, focusing on inquiry-based science education and involving 17 partners in 11 European countries (https://www.bgci.org/wp/wp-content/uploads/2019/04/PRACTITIONER_MANUAL.pdf). It is suggested that the practitioner manual associated with this project is used as a core resource*

An important part of the MenSI project is the development of 'Cluster Diaries'. This is a way of enabling groups of schools (both Advanced & Advanced Practitioner Schools) to collect together information to show how mentoring approaches are being adapted, developed and used. The information gathered will subsequently be used in defining some illustrative case study examples of mentoring practice, for wider dissemination.

The Cluster Diary approach adopted by MenSI recognises that national responses to mentoring and associated activity will vary from one country to the next; it also accommodates differences between individual schools within the same country. The tool developed is therefore a flexible way of ensuring that these important differences can be recognised and made more visible to stakeholders.

The MenSI project defines a 'Cluster Diary' as a flexible, school-generated way of gathering together a wide variety of evidence of professional practice in mentoring using a range of media. The diary



is a record of the collaborative thinking of a group of schools - 1 Advanced School (AS) and 6 Advanced Practitioner Schools (APS) - about self-identified aspects of mentoring. Its construction begins by each APS identifying a topic linked to mentoring which is felt to be of importance to their school. The APS then collects information about their chosen topic and shares this with other members of the cluster in a dedicated space, moderated by the AS. The 'diary' is a record of this information-exchange amongst all schools (AS/APS) in a cluster.

There are 4 stages in the Cluster Diary development. Stage 1: each APS gathers information about a key aspect of mentoring practice that has been identified as important in each school context. Stage 2: This information, which is in the form of multi-media materials and developed according to the interests and experiences of each school, is entered in a template. Stage 3: information from each APS is discussed by the whole cluster group, mediated by the AS and with input from the National Coordinator. Any additional information is entered in the final section of the template. Stage 4: completed APS templates form a record of the groups work and are then reviewed/analysed by MenSI to create a 'Cluster Diary'. The information the completed Diaries contain contribute to the project's deliverable relating to illustrations of best mentoring practice. This process is represented in the following table:

Development Stage	Action	Output
Stage 1	APS identify a mentoring focus	Individual APS focus confirmed
Stage 2	APS gather school-based information & reflections	APS
Stage 3	School cluster (APS/AS) discussion; additional reflective comments added	Individual APS Information template agreed
Stage 4	APS Information templates synthesised by MenSI team	Formulation of a 'Cluster Diary'

Several key actions are involved in the process of developing Cluster Diaries:

- APS must ensure that colleagues are aware of the MenSI project activity, using these Briefing notes as an information source
- Details of confidentiality and data protection are highlighted
- Following discussion, each APS in the cluster agrees a mentoring focus - duplication within clusters is acceptable
- APS agree to regularly input evidence, preferably at least twice each school term - any interested teacher can do this



- Observations/reflections/supporting evidence in the e-template can take any form, according to individual preference
- APS share their evidence in cluster meetings with the AS and their National Coordinator; this forum enables a professional exchange of ideas and generates additional reflective comments for each information sheet
- Cluster Diaries are then assembled by MenSI (Work Package 5) colleagues to map mentoring activity and illustrate aspects of development in case studies.

In order to capture real-life evidence of practical issues experienced by schools, the MenSI project places great emphasis on local contexts. All our APS settings will be different. They each encounter challenges or success which although sometimes thematically similar, will be conditioned by their own unique educational, social or economic conditions. It is suggested that formal/informal discussion in each APS is the basis of identifying a focus: typically this is an aspect of mentoring activity which the school feels that it would like to understand more deeply, or which requires further professional knowledge. It can equally be an aspect of practice which is causing a challenge, or an area of successful practice which the school wants to build upon.

Cluster Diary information can be developed in any way an APS chooses. However, to enable discussion and development between other schools, we recommend using a common format, which enables contributions to be made regarding various aspects of their selected mentoring-related theme. **The description of the template provided to schools may be found below and the full document [here](#).**

Template description (as provided to the MenSI Schools)

Anyone involved in learning and teaching in the participating APS can make an input to the Cluster Diary Information Template. There is no hierarchy of importance given to the evidence collected or from whom it has been obtained. Subsequently, additional information can be added as a result of cluster-based discussions involving both the APS, the AS and the NC.

The Cluster Diary process is structured in such a way as to encourage flexible, creative and practice-based contributions from school leaders, teachers and those working alongside them. This can also include students as well as their families. The APS decides on the kind of content that is appropriate to their given situation and to the mentoring topic they selected to explore. Both 'Evidence-Based' and 'Reflective' content is to be captured. Both are interdependent and integral to the diary-building process. We do not place a limitation on the length of contributions or the way that those completing the diaries choose to present it.

A collection of artefacts (meaning any written accounts/words/graphics/film/music/assistive technology/multi-media and other sources) gathered over the project's duration to illustrate the way that teachers have identified, explored and progressed the chosen mentoring-related topic. The evidence included can be part of a lesson plan, a meeting agenda, a record of a meeting between two teachers, an extract from a professional development session... the list is open-ended.



The intention is that each cluster of MenSI schools (1 AP and 6 APS) assemble a diverse body of materials that best illustrates their collaborative work in mentoring.

To obtain a deeper understanding of the mentoring-related actions taken in each APS, teachers, other professionals, students, families and others associated with the activities are invited to contribute their views, commentaries and observations at each stage of the template process (i.e. identifying a focus, the action taken, the results obtained and the potential future actions that might be considered). This can include recording (using written accounts/words/graphics/film/music/assistive technology/multi-media and other sources). These ways of reporting can be used to provide illustrations of teachers' thinking regarding the overall process. They can comprise short notes or longer pieces of reflections. It could, for example, highlight one or more of the following:

- why the topic selected in an APS was important to the school
- the way the school identified that there might be a gap in its professional knowledge
- feelings about receiving further professional support
- views about working collaboratively with others
- ideas about how to learn most effectively
- whether the cluster diary process has brought changes any changes pedagogical practice
- whether the cluster diary process has brought changes any changes in motivation or attitude
- how personal development targets are set
- from whom or where is professional support obtained
- what has been most challenging about the cluster diary process
- whether a school's initial expectations of the process been realised
- thoughts about building on achievements

The information you provide contributes to one of MenSI's significant deliverables, the creation of a series of case studies. But it also has implications for your own professional progression and that of your school. So we're interested in receiving your observations regarding the actions that you might consider taking in the future - based on any gaps in your knowledge-base, or any outstanding needs that are apparent in your APS. We are especially interested in what motivates you to take further action, and how might you upscale and disseminate what you have already done.

Distribution, collection, storage, use and disposal of all data from the Cluster Diaries and the discussions that take place relating to this data will be subject to the Code of Ethics enshrined within the project's Data Management Plan (April 2021). This relates to the following key aspects of research ethics:

- Requirement for informed consent by all participants
- Status of all MenSI staff to be validated by their own national child protection agency
- Agreement of an individual timetable for data-collection with each AS and APS
- Formal undertaking regarding confidentiality, anonymity and storage of all data
- Agreed understanding regarding the use of data obtained from all AS and APS



- Provision of an opt-out option at an agreed point in the research process
- Opportunity for participants to review any contribution they provide to MenSI
- Appropriate acknowledgement, where required/agreed, of schools' contribution/resources

Internationally there has been a rapid growth in the volume of illustrative resources to show best-practice in learning and teaching in schools. Some include material which can provide examples to support construction of school-based evidence in a diary-style format. It will be apparent that all of these examples are illustrations of the way in which a 'community of practice' approach in schools/classrooms can be captured using mixed media.

Some resources produced by a related project, Living Schools Lab, will also be worth exploring (<http://lsl.eun.org/>) as indicative of mixed-media approach to presenting accessible school-generated resources that can be used by others to inform practice. Other illustrative resources include those that have been widely developed, for example in Australia and Canada. These include:

<https://www.aitsl.edu.au/lead-develop/develop-others/classroom-observation/classroom-observation-strategies>

Elsewhere, the idea of a 'patchwork' of evidence has become a popular way of gathering evidence of practice; one example of this is the 'portfolio' of evidence, as explained in this university-based illustration: (https://warwick.ac.uk/fac/cross_fac/academic-development/assessmentdesign/methods/portfolios)

The information provided will contribute to a collective 'Cluster Diary', which will form a record of the professional discussion which takes place between the AS and the APS in each of the 6 clusters in all the project's partner countries. This information will then be reviewed by the MenSI team. It will provide evidence to support a review of mentoring activities (Deliverable 5.1) and a report on Effective whole-school mentoring (Deliverable 5.2). The second of these outputs contains illustrations of best mentoring practice, to which the Cluster Diary evidence will provide a significant contribution.

Data analysis

The evidence gathered using the 4 instruments described was analysed thematically, using keyword and key-phrase identification. Thematic analysis is now a widely used, method of qualitative data analysis (Kiger & Varpio, 2020). Traditionally, however, it has been viewed as problematic. This in part is because the predominant paradigm in much social research was positivistic, based on quantitative methods and data. As a result, many misunderstandings regarding its capacity to accurately reflect the realities of research phenomenon arose. More recently, however, thematic analysis - using both manual and digital techniques- has come to be regarded as a useful and accessible tool for qualitative researchers (Nowell, Norris, White & Moules, 2017).



A further contribution to the validity and reliability in the mixed-methods approach adopted in the MenSI project is its use of triangulation. This is now an accepted way of ensuring synergy between datasets which have been derived from the use of different research instruments (in MenSI's case, the baseline survey, semi-structured interviews, school observation visits and cluster diaries). By synthesising 4 evidence sources, the intention is to provide a real-world account of some of the diverse ways that AS and cluster schools are using MenSI activities to expand their understanding and pedagogical applications to embed digital engagement'.



Part B: Key findings

This section of the Report provides a summary of evidence assembled using the 4 data sources described in Part A.

Data type	Belgium	Croatia	Czech Rep	Hungary	Italy	Portugal
Baseline Survey	X	X	X	X	X	X
Interview	X	X	Tbc	X	X	X
Obs. Visit	X			X		X
Cluster Diary	X	X	X	X	X	X

As stated earlier, emphasis is placed on the 'voices' of participants in order to illustrate the activities in the mentoring clusters, and to highlight innovative, effective and scalable strategies, practices, processes and digital tools used. Reflections on each of these have been collated from each of the 4 domains (whole-school, individual teacher, mentoring and student experience) which, when viewed collectively, are a summary of what we term the 'MenSI experience'.

In order to enable findings to be accessible to a wide professional audience, in keeping with the action-based orientation of the MenSI project, they are reported in two sections. In each, the way that project actions have impacted on whole schools and key individuals within them, is described, using the thematic domains which have informed each of the data-collection instruments.

Additional materials associated with the evidence-base used are available from the [MenSI website](#) and are free to access.

Advanced Schools: the MenSI experience

in the MenSI project, the Advanced Schools identified in each Partner Country to be the fulcrum for mentoring development in a cluster of schools, are described as locations which fulfilled a clear set of criteria, set out in WP3. The Advanced Schools are thus distinguished by full engagement in ICT-based mentoring activity in respect of leadership and capacity for innovation, active involvement by a majority of teachers in applying ICT in learning development, positive impacts of an ICT-based curriculum on student learning and capacity to network and collaborate with others.



Our findings on the MenSI experience of the participating Advanced Schools is divided into two parts - specific features of ICT applications and generic dimensions of the approach to ICT-based activity in mentoring. In both the emphasis is placed on themes emerging from the whole school, individual teacher, students and the wider community domains identified earlier.

ICT-specific characteristics of Advanced Schools.

Schools that had a **clearly defined and widely applied digital policy** were predominantly Advanced Schools - day-to-day application and embedded use of this policy was an obvious distinguishing feature between them and cluster schools. Though the existence of a digital policy was apparent in the latter, its impact was less frequently apparent in practical classroom situations. A teacher in an Advanced School told us that (it was) *'...very important for us to all pay attention to our policy, because this is what makes us act together and it gives the children in our school a lot of confidence that we are all together in doing it'*. It is also worth noting that, amongst the Advanced Schools, **digital policy covered a range of common topics**, including specifications and criteria for assessing 'digital competence', identifying gaps in provision and arrangements for professional development. Alongside these was a clear indication of how resources were allocated, to maximise efficiencies of scale and use of specialist resources. Nevertheless, even though a few respondents in some cluster schools indicated a lack of awareness of their school's digital policy, an overwhelming majority were able to at least recognise its existence. Translating policy awareness into ground-level classroom practice appears to be the major concern.

To support the widespread use of digital approaches in learning and teaching Advanced Schools have a **significant and ongoing commitment to professional development**: *'We have regular times when we can share knowledge, learn from each other and get expert opinions and knowledge from outside. We are all different...at different levels...so these times are very important to us because technology is always changing'*. This recognition, in Advanced Schools, is further illustrated by the way that internal **innovation in ICT is more often driven by individual expertise** which can develop intuitively in diverse aspects of the school, almost by accident and based on the interest and ideas of individuals. So, one school leader told us that *'This is an open space for learning, both for children and for all our teachers. We keep trying to celebrate new ideas and I encourage them (teachers) to make sure that other teachers can share in what they find out and use. This is the best way to make progress'*. We observed a paradox in the data, however, in that Baseline Survey reporting suggests that a substantial majority of teachers are satisfied that ICT is an explicit element in their professional development; some contrasting narrative data suggests that this issue is not as clear cut: one teacher in an informal (unrecorded) conversation stated that *'I don't think that teachers like me get enough support to apply the things that you're talking about'* (verbatim comment). This is further amplified by variations in responses to similar/related questions in the project's Baseline Survey and those reported in the SELFIE too.

Advanced Schools **value external input, both informal and more official**, links. This adds variety to the ICT-orientation of the school and enables teachers and students to look beyond the immediate pool of knowledge that exists. Such a position is neatly summarised by a head teacher in an



Advanced School, who firmly stated that *'We make links...we are always looking for opportunity. What we know and the way we work, even though we are supposed to be a leading school according to what others say, is only a small part of a much bigger thing. ICT is expanding all the time, and schools, even like us who are very into ICT in the curriculum, have always to look outside. It is really so important to do this...2 or 3 years is a long time, it moves so fast'*.

There is considerable narrative evidence to support the view that Advanced Schools have a **greater awareness of the way that ICT can be used to support a wide range of mentoring activity**. This is partly illustrated by the whole-school 'buy-in' to elements of digital practice that enable it to be seamlessly embedded in every-day school activity. To enable this to happen, Advanced Schools are more likely to adopt a **strategic approach to teacher recruitment**. In this they are more inclined to include ICT/digital knowledge and application as part of any selection process. One school leader validated this viewpoint by stating that *'Getting a 'digital culture' right is more about how our teachers engage with technology. They must see it as more than a one-dimensional aspect: ICT has to be regarded, it has to be looked at as being a positive thing for them and the students that they're teaching. It goes a long way beyond just the taught curriculum'*.

A feature of digital applications in Advanced Schools is that there is a **recognition that learning and social behaviour is linked**. Advanced Schools are more likely, therefore, to see that digital applications - more usually applied in the taught academic curriculum - have wider applications, especially in student behaviour. Importantly, especially given the rapid societal and cultural changes experienced across Europe and the resulting emotional challenges facing children and youth in schools, Advanced Schools are **more likely to search for opportunities to use digital supports to enhance student well-being**. We were told by one teacher that *'I have seen what is a very important EU report* that indicates how digital issues can help support my students to gain an equilibrium for their emotional state. We are not yet, but I know some schools in my country are receiving larger numbers of refugee students, so I think ICT will play a big part in helping teachers with this'* (Eurydice Brief (2017) Digital Education in Europe - available at https://eacea.ec.europa.eu/national-policies/eurydice/sites/default/files/eurydice_brief_digital_education_n.pdf).

Certain structural features in school organisation enable Advanced Schools to function more effectively in supporting whole-school innovation and progress in the practical use of ICT. Advanced Schools, for instance, have systematic training regimes (see above) and are more likely to have a **clearly-defined staffing structure** to support engagement and development. A key dimension of this is that the Advanced Schools in the MenSI project are more likely to either have a designated 'digital lead' who is recognised in both status and remuneration (salary). In addition, there is greater likelihood that **school leaders (head teachers) of Advanced Schools are themselves firmly and publicly committed to a 'digital vision'** for their school. Two interview extracts highlight these features: one experienced ICT practitioner noted that *'Teachers here see me as the problem-solver. I am the go-to person on ICT in the school and that is a good position: teachers here know where to go for help and the Principal trusts me with that and recognises my position'*. A school leader also told us that *'Unless I show to my staff that I am interested, and that I believe in what we say is our plan, it won't work. I have to be an example, show how we will not move forwards...'*



There was little to distinguish between the way that Advanced Schools utilised ICT to ensure easier school-home links. This greater uniformity of approach is supported by the observation by one project member that *'All schools in the cluster make very good use of ICT to keep parents in touch with what progress their child makes or if there are any difficulties that we are experiencing'*.

There is a significant difference in the way that Cluster School teachers view the role of digital in their own teaching, this marking a major difference between them and their colleagues in Advanced Schools. One classroom teacher told us that *'The way that I know that I am making progress and putting our philosophy into practice is when I scan my classroom and I see that the children are working on various things, but they're not all fixed on using computers or other technology. I say this because it happens even when there is a laptop which is not being used...the children ignore it. They see it as being there for a purpose'*. The **majority of teachers in Advanced Schools view digital technology as 'extremely important'** (based on our baseline feedback), with only a few exceptions.

In spite of this, the usefulness of ICT in generic mentoring related-activity highlights some discrepancy in these teacher's 'MenSI experience'. Here what is apparent is that Advanced schools, probably resulting from their deep engagement with technology, are more likely to see its potential in certain aspects of overall school performance. This is notably the case in respect of **supporting 'inclusive education'**. Regarding this, one teacher in an Advanced School stated that *'ICT gives us a lot more flexibility in the way we work with our students. This is very important because some have many needs that would not be met by more traditional ways of teaching'*. Such a comment also reflects the extent to which digital resources and tools **enable all students to learn independently**. In one observation visit, for instance, a class teacher was functioning as a 'consultant', to whom the students referred whenever they needed feedback. In this case, the teacher did not direct the learning pathway - rather, she provided a scaffold, a set of stepping stones, which the students negotiated in a wide range of ways. The teacher stated that this approach *'...gave the children a purpose...it gave them ownership because they could make changes, adaptations to the way they were completing what I'd asked them to do'*. Our data suggests that this approach is much more common in the project's Advanced Schools.

One participant interviewed said that, for him, a teacher's **confidence was the most important factor in securing digital buy-in**. He stated that *'The biggest obstacle I see is in developing greater use in all aspects of our school is that some teachers can lack confidence in trying things out. They seem - to me - to be a bit frightened to fail. So I would definitely agree with the idea of allowing a bit of risk-taking, you know...it's all right to fail'. But some of our cluster schools don't yet have that culture of acceptance, and that's what we are trying to create'*. Interestingly, another respondent (a head-teacher) said that **empowering teachers** (making them self-actualised and digitally confident) was something that had to come from the top down. For example, in one Partner Country an Advanced School head-teacher stated that *'Creating our digital culture, the one you see that gives everybody an opportunity to progress, is really a joint effort...me, the ministry, our own students and the surrounding community...including other schools and businesses'*.



Opinions expressed about the role of **ICT-supported mentoring** in generic teacher development further distinguish the Advanced Schools in this project. Cluster-based schools are less likely to regard mentoring as a cornerstone for teacher's professional advancement. The Advanced Schools in the MenSI project almost unilaterally held a view that such activity was essential to allow a digital culture to flourish: according to one senior practitioner: *'A basic activity in teaching is communication with other teachers. That shouldn't be a subject that we are talking about. What we need to do is to enable schools, all the teachers, the parents and other people to take part in exchanging skills and good ideas. We do it by mentoring and I think teachers here are very happy about that'*. This is not to say that most cluster schools fail to acknowledge the importance of this, a feature indicated in the various evidence-bases used in this Report. What distinguishes Cluster Schools from Advanced Schools is the limited capacity and vision of the former to make mentoring practice happen in reality, rather than in theoretical terms: this point is well-illustrated by one teacher from a Cluster School, who felt that *'There is a good plan in this school to become more fully digital, including in teacher's training. But getting resources and the knowledge to do this is often difficult'*.

Evaluating progress, both of students and of the way that teachers develop, provides a very clear distinguishing feature between Advanced Schools and Cluster Schools, the latter indicating less enthusiasm for ICT applications. But this feature is recognised as a crucial element in *'digital well-being'* (as one Advanced School head-teacher referred to it). Thus, several Advanced Schools were reporting that (to use one example) *'ICT is part of the future. It won't go away. I think there's a cultural and age divide maybe, which can dominate the way that a school moves forward. To me, I systematically try - obviously lawfully and with respect - to move teachers away who resist it'*.

Advanced Schools are distinguished by the way that they **promote innovation and undertake 'calculated risk-taking' linked to new approaches in mentoring** utilising ICT. They are more likely to try experimental approaches to support teachers, as illustrated in extracts from Cluster Diary data. Adopting a new approach in any aspect of school life requires confidence and self-actualisation amongst its teachers. The Advanced Schools that contributed to the evidence base reveal a willingness, at all levels of the school and across all disciplinary areas, to challenge existing ways of working and to be receptive to new ideas from across the school community as well as from outside. To be successful in doing so, one head teacher indicated that there should be *'...agreement about the purpose of what we are trying to do and a lot of visibility...nothing can be hidden or become the responsibility of just a small number of influential, high-status teachers. Everyone, because of an effective way of mentoring, plays a more or less equal part'*.

Generic characteristics of Advanced Schools

Our scrutiny of the various data-sets generated in the MenSI project was widely discussed amongst the WP5 team and the wider project. We also received valuable independent feedback from colleagues working in a range of country locations. This group met twice, and discussion regarding the characteristics of Advanced Schools and any notable differentials between them and Cluster Schools provided a broader yet context specific backdrop to the ICT-specific aspects of mentoring



noted in section (a). Subsequently, the data scrutiny, key-word & phrase analysis and dialogue with colleagues and reference group members identified several generic characteristics, which are dimensions of successful and effective mentoring practice incorporating ICT. Many generic aspects highlighted in this section align with the ICT-specific issues described in section (a); their importance as factors which establish a positive context or the platform on which mentoring development in ICT can develop is nevertheless clearly acknowledged by participants. Dimensions of each of them are now considered.

Top-down and bottom-up: a whole-systems approach

The project participants from Advanced Schools made extensive reference to the importance of a 'wrap-around' approach to innovating digital approaches in mentoring. Several interviewees and participants in school visits, together with numerous mentions in transcripts of face-to-face interviews spoke of the way in which their school was part of a wider effort in progressing the digital agenda for mentoring. One school leader stated that it was a necessary feature in order to ensure a whole-school development which becomes both transferrable and sustainable. He stated that *'There's no argument about why we can do these things: we have a plan which is a summary of everyone's intentions and hopes. We can get on with it without any fear that we are going to be looked at in a negative way. We get a lot of positive input from government...it is they who take the brakes off and so we just can move. No single one person, or factor: that is what I feel and understand'*. Another classroom teacher made the point that what she experienced was the result of a 'community of practice approach: *'We use that as way of getting everyone involved. It is part of the way that things work here...with a lot of sharing and exchanging ideas...but also it is about this giving us a kind of 'permission' so that we work without any fear of being told that this is wrong or a problem'*.

There is therefore a very clear recipe for successful development, so that central policy, local needs, and the aims of Advanced School have a very clear synergy, resulting in a critical mass of policy and practice intention. As with all 'ecosystems', should one part of the whole not be aligned, progress will be hindered. This, it is argued, distinguishes MenSI's Advanced Schools; Cluster Schools often have several positive elements, but lose momentum because one or other aspect of provision is not effectively synchronised with other parts. An experienced teacher in one Advanced School summarised this: *'We don't see our project partner (schools) as not being skilful, or not having a will to make a change. I think what I see is that sometimes there isn't a smooth connection between everyone, or in the school policy maybe. Our work with them is a way of getting past a blockage or a navigation error...once it happens they move forward'*.

Aiming to be 'invisible': ICT as context not subject

We visited Advanced Schools where it was clear that ICT was, in itself, not a feature of the school which was highlighted by practitioners as a 'topic' or curriculum area in its own right. These schools regarded ICT as a vehicle to support both the students' curriculum learning, professional dialogues and knowledge-building - alongside being a mechanism which enabled the school to operate in a purposeful, efficient and connected way. In other words, observation visits (for example) were



made in which we were able to see a broad spectrum of subject-based teaching, including interdisciplinary activity, in which ICT functioned as an enabler for knowledge generation. All stakeholders - teachers, helpers in classrooms, administrators and the students themselves showed us that the digital technology being used was part of a process where the ultimate output was positive progress. One head-teacher presented a summary of this as *'ICT never becomes a unique or stand-alone subject here; it enables us to do interesting things and to expand our pedagogy, so that everyone benefits'*. Another told us that *'Sometimes we might not use any digital applications in a teaching session...but we are very relaxed about it. It should never be the purpose of a teaching session, more something that takes place in order to facilitate student learning'*.

This stands in contrast to conditions in some Cluster Schools, where anxiety over teacher expertise in certain aspects of ICT can be an inhibitor of development. One Advanced School leader mentioned that a big barrier here was that *'We need to persuade our partners in the project that the use of ICT can't be artificial...forced...as though a lesson will be less good if the teacher doesn't use at some point any ICT. This is too superficial and it doesn't benefit students, because they see that it's the technology rather than knowledge as the most important thing being taught'*.

Productive change is slow change: a stepped approach to mentoring support

The Advanced Schools in the MenSI project have not reached a stage of quality use of ICT in supporting students and teachers in a short space of time. What is characteristic of their development is that it has been incremental, systematic and most importantly strategically planned for to realise an agreed whole-school vision. One participant neatly summarised this, advising that digital progression to a point where there is a fully embedded and universal application of ICT in each of the 4 domains mentioned, will mostly be seen as change over an extended period of time, rather than a single event or change in policy direction. He thus remarked that *'Of course it is essential that there is a plan, but this has to be divided into stages. If changes happen too quickly there is, most likely to be a burn-out, and the change will probably fail'*.

What we have identified, in analysing the data sources relating to Advanced Schools, is that they are good illustrations of the application of the defining principles of 'change theory' Fullan, (2006). This highlights 7 core premises informing the change process. Attributes of each are clearly visible in the way that MenSI Advanced Schools have sought to secure full and sustainable development in their approaches to mentoring. Illustrations of the premises Fullan has highlighted can be found in transcript and observation evidence in WP5:

1. A focus on motivation: *'We support our teachers as they make changes in the way they work. It cannot happen without the teachers feeling that there will be a positive result. They must feel that it's worth doing, valuable to them in their work, otherwise they will be less involved in making things work'*
2. Capacity building, with a focus on results: *'We get judged on the progress made by the students here. Sometimes that won't happen straight away. As a head-teacher I must make sure that I look for any gaps, anything that we lack the skills to do, and then I make sure that we have a plan which will take us forwards'*.



3. Learning in context: *'We start out by finding out where our strengths lie and what we lack. We must make sure that what we do - and this isn't just for technology and digital approaches - fits with the learning needs of our students, individually and as a whole school.'*
4. Changing context: *'Yes...we have a plan which you've seen for working to improve the ICT knowledge and skills. But it's not fixed. We have to be able to change direction...this is especially important because ICT is fast-moving, and our children also change from year to year.'*
5. A bias for reflective action: *'The school is a big community where we accept that learning has got a lot to do with thinking about what we do...'Does this work?' 'What can we do to improve the way we're using ICT in our teaching'*
6. Tri-level engagement: *'We get support for what we do from every level. This is not a single person, small group or me as the head-teacher. We can develop because right from the top, at the Ministry, we are encouraged. We get help and advice from many people, at that level, locally and from people in the local community'.*
7. Persistence and flexibility in staying the course: *'I don't think that we move forwards in a smooth line. Change isn't like that at all. So it's important to have resilience and to accept that some of the time things might not go the way we intended or planned. I think that making mistakes can be OK, if we learn things from them'.*

A shared vision is the starting point: a whole community approach

The MenSI Advanced Schools are distinctive in the way that the whole school has been built around a collective vision and an operational plan to deliver it. The school leadership teams we spoke with were very clear that this was a critical starting point, with some resistance being met when ICT innovations in learning and teaching were being considered: *'We tried not to underestimate the difficulties in gaining everyone's agreement - we did have to work hard to persuade the parents that what we wanted to do would not disadvantage their children. Some of the parents had traditional views, they wanted the teaching to be the same as they'd had...'*

The Advanced Schools demonstrated that buy-in to their vision of embedded use of ICT across all aspects of school life was an important part of the way they selected and retained teaching staff. As one head-teacher noted, *'We have a definite culture here...a way that we work, and it's made clear what that is to anyone who wants to work here. Sometimes we have a teacher who is not very tuned to the approach we have. It is important when this happens that we don't blame somebody because they don't fit in. I realise that this school isn't everyone's choice'*. Another school leader emphasised the importance of having ICT-related activities as part of the way that staff were recruited. This was less about ICT know how or skills, it was more about appointing teachers who *'...get what we do, are enthusiastic about learning new things and who aren't fixed about the way that a subject should be taught'*.

All schools have 'champions': innovation and 'change agents'

We were made aware that in most schools in the project - whether Advanced Schools or Cluster Schools - there are some teachers who can best be described as 'champions'. These are members



of staff (both teachers and support staff) who are catalysts for action in stimulating change. In Advanced Schools it is clear from the accounts provided by participants that several key people, not a single source, stimulate change and development: *'Ideas and suggestions flow through the school a bit like a river, with big and small streams adding to make an even bigger river...does that seem right? ...sometimes there will be fewer ideas because of certain reasons but because there are many streams the river keeps flowing'*.

A further feature of Advanced Schools, distinguishing them from Cluster Schools, is that ICT champions in the former schools are more likely to be distributed across every level of the school. Change or innovation can be triggered by less experienced teachers, or by those who have no designated responsibility for ICT in the school. One project participant stated that *'We can all give our ideas...that's the great thing. The head-teacher likes the challenge that new teachers bring to the school, especially younger teachers who have great enthusiasm combined with up-to-date knowledge of ICT applications'*. In Cluster Schools it is more likely that the change-agent is a senior teacher or head-teacher.

Digital becomes traditional: future-proofing progress

Advanced Schools have both critical mass to support ICT innovation as well as a capacity to engage in a cycle of continuous refresh, where new development opportunities are introduced and, subject to viability, quickly built-in to the teaching routines. They are then supplemented by further refinements and rapidly become accepted and standardised across the learning and teaching repertoire. In other words, innovations in ICT become normalised and accepted as a traditional way of working. As an illustration of this, we were told by one Advanced School leader that *'I want ICT to be like a writing pen and paper: when students write using them they don't look in amazement at the pen or get excited that they're using a pen to write. They just accept it because it's the tradition. What we are aiming for is for ICT to be seen in the same way'*.

Different context, different changes: establishing needs and priorities

Contemporary teaching and learning in schools across Europe have placed a rapidly increased emphasis on individualism. Recognition of a diversity of student characteristics as well as preferred ways of learning are vital components of inclusive education, and play a big part in promoting the engagement of widely different learners. Advanced Schools indicate that ICT applications are a key dimension to making curriculum content accessible to all. As one head-teacher explained, *'We don't fit the student to the technology or even the other way round...the task for us is to get the best fit according to the type of student we are dealing with. We remind ourselves that we're not modelling the student in a way that they fit into our approach. It is really about whether the teaching we do, including the use we make of ICT, is meeting the needs of the student'*.

Cluster Schools: the MenSI experience

Our data analysis of Cluster Schools, conducted using the same key word/phrase as that applied to Advanced Schools, provided a range of ground-level insights from project participants. The Cluster



Schools, identified by individual Country Partners, represented educational settings which covered a wide range of ICT levels of awareness and application. We are keen to emphasise that many Cluster Schools have an extensive repertoire of pedagogical skills. Their willingness to engage in the 'learning communities' led by the nominated Advanced Schools is a confirmation of their commitment to ICT and mentor-related development - this positive characteristic should be overtly acknowledged.

Getting the starting point right

Cluster School feedback indicates that most participants regarded reliable baseline information as an essential feature of their involvement. This provides information on the current ICT capabilities and strengths, as well as gaps that are immediately apparent. One participant for example stated that *'Unless there is evidence about what our needs are it doesn't bring us benefits to be involved. The requirements of each school in the group (cluster) are different, so this is very important'*. To ensure that information has validity in reflecting the needs of each school community, care has to be taken to obtain the opinions of the whole school; this was apparent in the comments of several participants with one noting that *'We must not be influenced by just one idea from an influential person who wants to push forward an idea. The (Advanced) school we join with have shown that we should get everyone involved if things are to succeed'*. In addition, there is a firm belief in the Cluster Schools that their starting point should be quite small-scale and be a response to a practical problem that existed in the school: adopting a sharp and attainable target is seen as a good way of motivating teachers to be involved: *'All teachers like to know that something they are spending their time on will have an impact in the classroom - finding good technical solutions makes the teachers realise it is a good thing'*.

Learning from lessons, lessons from learning

Some clear signals are emerging that participants working in Cluster Schools are acknowledging the practical benefits of cluster membership. There appears to be considerable evidence that the modelling of ICT practices by Advanced Schools is a powerful strategy to promote development. Cluster Diaries - which are to be reported on by October 2022 in PART C of this final Report - contain widespread instances of the practice-related benefits of this way of working. Initial commentaries by Cluster School participants substantiate this view. Thus, one teacher said that *'...having a real school example of an approach that worked was necessary. What this did was to make things relevant to us because we can see ourselves how the aim translates into an actual event'*. Another commented that *'I was able to see for myself how a teacher who is in my position can do adaptations to bring ICT more to the centre'*.

These teachers recognise the principles involved in 'active learning' (Borko, 2004, Van den Bergh, Ros and Beijaard, 2014). These emphasise the importance of focussed discussion, problem-solving, critical reflection and developing agreed solutions. An emphasis is placed on shared expectations and the impact of positive outputs and outcomes for all participants. Illustrating the orientation of active learning in Cluster Group operations, a head-teacher stated that *'As I see it, what we did and still do with the other schools is to learn from each other by using examples that are practical*



and that we can make work in other situations. We can use the knowledge we gain ourselves; so it gives a lot of purpose to what we do'.

Digital innovation supports both interpersonal and intrapersonal learning

The evidence obtained suggests that the benefits of working as part of a School Cluster are apparent on both a personal and institutional level. Both feature visibly in each of the 4 evidence bases assembled. This is unsurprising, given the positive comments regarding the value of a 'communities of practice' approach, highlighted earlier in this report. A feature of this is that the evidence suggests that a diverse range of Cluster School staff indicate that professional learning has taken place in ICT application. So head-teachers, designated teachers with responsibility for digital technology and classroom teachers all featured in these positive comments. Three illustrations of this are worth noting: *'I have good knowledge and experience of ICT and its use here...but I have still learned new things that I can use to improve'* (Designated teacher); *'I'm sure some of the teachers here think that because I'm very involved in ICT that being involved means I don't get a benefit. That's not true, in my case at least'* (Head-teacher); *'It has been very good for me, there have been so many opportunities to get practical information from other teachers. I think I have benefited a lot from being in a group of schools'* (Class teacher).

Benefits extend to whole-schools too. Whilst these are interrogated in more detail in PART C, the implications are that the kind of peer-to-peer learning that has taken place between schools has already seen an impact. As one head-teacher observed, *'I think we have changed, become more adventurous or experimental in what we do...I also think that we are more decisive in doing things...we are more confident I would say'.*

Multidisciplinary & inter-disciplinary

Several of the respondents confirmed some of the supporting observational evidence drawn from school visits that mentoring activities which were being introduced had triggered the development of cross-curricular learning, with subject clusters linked to STEAM and the humanities being especially evident. It was noted in feedback from one cluster partner that *'The work we've been doing has...how shall I say...given a kind of permission and authority to explore much more. If I say that it is like a green light to be more free to explore'*. More specifically, we were told that *'...in general I have seen my subject field as an individual area of knowledge. What I have now seen is big opportunities to enable understanding by using digital stuff to show how the whole of children's learning is connected. This is a big step for me and for other teachers here'*.

Promotes inclusive teaching & understanding

MenSI activities involving cluster schools confirm the importance of digital supports in promoting greater inclusion - both in terms of formal learning as well as social learning. The cluster schools were often highly attuned to the way that ICT is able to promote equity and opportunity - such aspirations were explicitly stated in formal information about the school(s), as in the case of publicly-available statements on school websites for example.



Engagement with other schools, and notably the exchanges with AS settings in each cluster provided important confirmation that such digital opportunities enabled all learners to develop: *'What I found is that it is not a case of digital development of learning favouring one group or another...it helps open doors for a big range of students and this includes very top-level learners too'*.

At the same time, one senior leader confirmed the value of cluster-based engagement for the professional development of teachers: *'It cannot be underestimated that some teachers need to find out more about student differences, so that they become better teachers. Joining with others, especially teachers using a mainly digital approach to make learning more reachable, gives them a great lesson that they could not get anywhere else at all'*.



Part C

As already mentioned, the third part of this document will be submitted as D5.2, including an update of D5.1 (Part A & B), the analysis of the case studies - examples of good practice (Part C), a summary of the features & benefits of whole school mentoring (synthetic analysis of parts a, b and c) and the full annexes.

All related documents and annexes supporting this report may be found [here](#).



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Coordinator



Partners



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