



This is a peer-reviewed, post-print (final draft post-refereeing) version of the following published document, This is an Accepted Manuscript of an article published by Taylor & Francis in Cambridge Journal of Education on 07/07/2023, available at: <https://doi.org/10.1080/0305764X.2023.2230161> and is licensed under Creative Commons: Attribution-Noncommercial-No Derivative Works 4.0 license:

Shafi, Adeela ORCID logo ORCID: <https://orcid.org/0000-0002-6265-5024>, Middleton, Tristan ORCID logo ORCID: <https://orcid.org/0000-0001-8111-3856> and Jones, Chris ORCID logo ORCID: <https://orcid.org/0000-0003-0825-5860> (2023) Re-engaging incarcerated children and young people with education and learning using Authentic Inquiry in Italy, Spain, Germany and the UK. Cambridge Journal of Education, 53 (6). pp. 803-824. doi:10.1080/0305764X.2023.2230161

Official URL: <https://doi.org/10.1080/0305764X.2023.2230161>
DOI: <http://dx.doi.org/10.1080/0305764X.2023.2230161>
EPrint URI: <https://eprints.glos.ac.uk/id/eprint/12864>

Disclaimer

The University of Gloucestershire has obtained warranties from all depositors as to their title in the material deposited and as to their right to deposit such material.

The University of Gloucestershire makes no representation or warranties of commercial utility, title, or fitness for a particular purpose or any other warranty, express or implied in respect of any material deposited.

The University of Gloucestershire makes no representation that the use of the materials will not infringe any patent, copyright, trademark or other property or proprietary rights.

The University of Gloucestershire accepts no liability for any infringement of intellectual property rights in any material deposited but will remove such material from public view pending investigation in the event of an allegation of any such infringement.

PLEASE SCROLL DOWN FOR TEXT.

Re-engaging incarcerated children and young people with education and learning using Authentic Inquiry in Italy, Spain, Germany and the UK

Dr Adeela ahmed Shafi, Tristan Middleton and Chris Jones

School of Education and Humanities, University of Gloucestershire, Cheltenham, Gloucestershire

Corresponding Author: Adeela Shafi ashafi@glos.ac.uk

Acknowledgements

The authors acknowledge the contribution to this research of the following contributors to the overall Project:

Dr Karsten König - Fachhochschule Dresden gGmbH Germany

Dr Prof. Yvonne Knospe - Fachhochschule Dresden gGmbH Germany

Dr Shaofu Huang – Jearn UK

Natalia Garcia Guilabert - Fundacion Diagrama, Spain

Raquel Jimenez Martos – Fundacion Diagrama, Spain

Caroline Dickinson - CESIE, Palermo, Italy

Cloe Saint-Nom – CESIE, Palermo, Italy

Alice Valenza – CESIE, Palermo, Italy

Andy Watch

Dr Diane Hart

Abstract

Children and young people who come into conflict with the law tend to be disengaged with education and learning. This paper reports on research from an EU Erasmus+ project in Spain, Italy, Germany and UK. The research focused on the impact of Authentic Inquiry (AI) on learners in custodial or youth justice settings and the impact on educators and their pedagogy. Quantitative data (from 82 educators and 73 young people), demonstrated the young people could be re-engaged with education and learning as evidenced in the change in learning power profiles. Qualitative data (from 16 educators and 14 young people) showed the greatest impact to be on the emotional component of engagement. The AI had an impact on educators as learners by improved learning power profiles and on their pedagogical approach. Ways to embed the approach into education in youth justice settings in the different country contexts are discussed.

Introduction

Children and young people who come into the conflict with the law and find themselves in either custodial or other youth justice settings have been found to be disengaged with education and learning (Fredricks, Filsecker, & Lawson, 2016a). School dropout records, often a proxy marker for school disengagement (Rumberger & Rotermund, 2012), show nine out of ten children and young people have dropped out of school for six months or more prior to their incarceration (Little, 2015). The phenomenon of disengagement with education and learning is one which many Western education systems have to grapple with (Deakin-Crick, 2012). However, for children who come into conflict with the law their disengagement is often compounded with other disadvantages, increasing the likelihood of school dropout, which then makes them more vulnerable to offending activities (Hirschfield & Gasper, 2011).

Children in Europe who receive custodial sentences, and research has shown that they tend to have some of the most complex problems and needs (Hughes, 2018). They are found to be at greater risk of marginalisation and exclusion due to being incarcerated, likely to have disadvantaged socioeconomic backgrounds and disengagement with education (Cripps & Summerfield, 2012), and as a result, limited education and employment opportunities. Furthermore, instances of re-offending are particularly high (e.g. 68% in the UK, Youth Justice Board, 2019), thereby further marginalising these children and young people and increasing the risk of them becoming adult offenders. Social inclusion is one of the key objectives set out in the EU Youth strategy, Erasmus+ Inclusion and Diversity Strategy, and the Europe 2020 Strategy, including the EU2020 European Platform against Poverty and Social Exclusion, demonstrating the importance of ensuring the inclusion of vulnerable children and young people and is the motivation for funding projects such as the one reported on in this paper.

Time whilst incarcerated is a key opportunity to re-engage these children and young people with learning, and facilitate onward education and training when back in the community (Taylor, 2016). However, in order to do this effectively, it is important to focus on the education provision (ahmed Shafi, 2018), and particularly the skills, tools and resources of and for prison educators as the catalyst for the development of the children and young people's development.

This paper reports on the activities and research conducted as part of an EU Erasmus+ 3-year funded project with 5 partners organisations in four countries; Spain, Italy, Germany and the UK. Further information on the Project, entitled RENYO (Re-

engaging Young Offenders with Education & Learning) itself may be found on www.skills4youth.eu, The aims and purpose of the project were to build on previous research (ahmed Shafi, 2018) and explore the extent to which a particular pedagogical approach, Authentic Inquiry (AI), could re-engage children and young people in conflict with the law and in custodial or other youth justice settings, with education and learning. The research by ahmed Shafi (2018) demonstrated that AI could be used to re-engage incarcerated children in the UK with education and learning relatively easily and within a short space of time, if the conditions were right. These conditions included enabling autonomy so a learner can be agentic and authentic when learning; the task itself; the role of mentors and; supportive prison environment. The RENYO Project was designed to test this approach in other country contexts using a bigger sample. It involved the development of a Training Pack (also available to download at www.skills4youth.eu) to train educators on the AI methodology and how to conduct it with the children and young people they work with. The training and all associated materials were designed specifically for secure settings with an understanding of the evidence both of previous educational challenges of children and young people who come into conflict with the law as well as the constraints of custodial settings. In this way, this Project and its associated outputs are unique and novel. The purpose of the Project and the research was not only to re-engage learners but to provide materials that could be used beyond the Project and continue to benefit educators and learners.

The cross-cultural aspect was essential to understanding if the methodology could work in youth justice settings in different contexts. The table below presents some background contextual information on each of the countries which participated. Whilst the cultural, policy and judicial context of each participating country is different as well

as the numbers of children and young people incarcerated, what is similar is the profile of the children and young people who have come into conflict with the law.

Participating countries also reported a similar demographic and background of children and young people who come into contact with youth justice. This was also found to be the case in the wider literature (ahmed Shafi et al, 2021).

[INSERT TABLE i]

This paper outlines the importance of engagement as a theoretical framework for exploring this area because we believe engagement is key to accessing learning and benefitting from education opportunities. The paper also summarises the educational challenges that both young people in conflict with the law face, as well as challenges educators in youth justice settings face. This is followed by an exploration of Authentic Inquiry as a methodology for re-engagement in the RENYO Project and presents findings from both the educators and young people. These are discussed in the light of the literature and the implication for education in youth justice settings.

Literature Review

Though there is a literature base for education of adults in prison, there is a paucity of research on the education of children and young people in custodial or youth justice settings (Steele, Bozick, & Davis, 2016). What there is tends to be focused on the success (or not) of specific interventions (Wexler et al, 2014). These interventions themselves tend to be focused on improving literacy and/or maths or other functional skills (Houchins et al 2018), i.e. skills and qualifications which are essential for a pathway to vocational training and employment. However, in the literature emerging

more recently, there has been a move towards education beyond the instrumental, i.e. based on skills or qualifications alone (e.g. Coates, 2016; ahmed Shafi, 2018, 2020a), with concern for personal development and growth. Szifris et al (2018) make the argument that because of the paucity and instrumental nature of education in prison, most prison education research tends to be on adults and published in criminology-type rather than educational journals. They therefore suggest that educationalists are yet to develop theories of prison education and even less so for young people. Despite this, there are moves by some educators who are beginning to bring the education, sociology, psychology and criminology fields together and crystallise some of the thinking in this area. This is exemplified by the recent international education journal Special Issue (ahmed Shafi et al, 2020) which explored this very factor. However, Szifris et al (2018) propose that educationalists need to propose their own theory of learning specifically for this field. They theorise three aspects of educational engagement in the context of prisons; *education as a 'hook' for change, education as a means to achieve qualifications and the educational environment as a 'safe place'* (Szifris et al, 2018, p. 51). Their systematic review of the literature supported the 'hook' and 'safe place' theory of education but found less support for education as a means to achieve skills or qualifications. This suggests that education for instrumental purposes alone is not enough for re-engagement.

Like Szifris et al (2018), within this research project we take the perspective that a 'desired outcome' is that the learner should *feel* a change in their personal growth and development as part of a wider learning journey. However, we place greater emphasis on the notion of engagement, as a significant component of successful learning (Fredericks, Filsecker and Lawson, 2016). This can be likened to Szifris et al's (2018)

‘hook’ which draws on the individual’s life story and is personal to them, without which a hook has nothing to attach to. Thus, we position this research project within the theoretical framework of (re)engagement as being critical to the success of educational opportunities presented in the prison or youth justice context. We also argue that the processes required for re-engagement are fundamentally different to those required for those with low engagement (Earl, 2017; ahmed Shafi, 2018). This is because the literature suggests that incarcerated young people are *disengaged* with education rather than experiencing (acute) low engagement (Earl et al, 2017; Ball, 2000). They therefore require distinct strategies for re-engagement.

Prison education

Challenges in the education of young people whilst in a secure setting are copious. They include: navigating a youth justice system with both welfare and punitive elements; individual challenges, such as emotional, behavioural or learning difficulties; previous (negative) educational experiences; complex social backgrounds; a lack of educational records (King 2015); constrained resources and; a workforce who may not be qualified as teachers or trained to the needs of young people in custody (Jeanes et al., 2009). The scope of this paper does not enable a full discussion of each of these but collectively they indicate the broad-ranging challenges of education within youth justice.

Research conducted by Blomberg, Bales, & Piquero (2012) concluded that education whilst incarcerated can be a turning point for even the most disadvantaged young person, irrespective of e.g. race or gender. Nevertheless, this must be considered against the context of their participants, because both Blomberg et al (2012) and other research

by Harder et al (2014) found this to be the case primarily for those largely with above average intelligence.

However, in the interests of social justice and genuine empowerment, education has to be a potential turning point for all learners not just those who are able. For that to be possible, it is even more important to engage the most disengaged learner. Research by Ahmed Shafi (2018, 2020) explored the nature of engagement and disengagement in incarcerated young people using qualitative methods and found that the secure custodial setting had a considerable impact on the emotional engagement of young people, however, when given the right conditions it was possible to re-engage incarcerated young people in a relatively short period of time. Ahmed Shafi (2018, 2020) used the Authentic Inquiry methodology as the 'hook' (Szifris et al, 2018) to re-engage incarcerated young people and the purpose of this RENYO project was to further explore this in other (non-UK) youth justice settings.

Authentic Inquiry (AI)

AI is an approach emerging from the pedagogical principle of participatory enquiry, recognising the importance of factors both internal and external to the learner which shape engagement with learning (Deakin-Crick, 2010) and is designed to build on personally relevant knowledge which is useful in education. A personally relevant topic is identified by the learner, enabling greater opportunity to connect with the learning process. This is done by taking the learners' interest through their own narratives and stories (personal) and navigating this towards the production of an 'artefact' such as a piece of art, poster or other product that has some external educational value (public) (Deakin-Crick, 2009). This could simply be a certificate or a

more formal qualification, but in so doing, there is a connecting of the personal to the public. The qualification is not the primary focus of the learner; however, this aspect recognises that extrinsic validation is not only a necessary aspect of education accountability, but that it provides a reference-point for learners' success. This approach has been shown to be effective in re-engaging disengaged learners in the UK and Australia (Deakin-Crick et al, 2010) and also young people in custodial settings (ahmed Shafi, 2018). By focusing on the authentic and personal interests of the young people, it is possible to reengage them with education as meaningful to them and their lives. This approach emphasises the significance of the learners' personal situations enabling the learner to see their interests represented in formal learning – something that evidence has shown to be missing in their previous educational experiences (ahmed Shafi, 2018). As an example, AI can use a learner's own experience as a starting point to discuss, consider and plan how the learner can develop an educational artefact which represents their learning. In turn, these discussion prompt reflection upon the learner's own learning characteristics, which links to the concept of Learning Power (discussed below). They can thereby access and develop, for example, writing skills, scientific knowledge, and mathematical knowledge. In doing so they have used a personal situation to re-connect with aspects of the curriculum and thereby it is not as irrelevant to their lives as they may have thought when they disengaged from formal education.

Authentic Inquiry itself has a limited research evidence base as it is primarily a practice intervention. Therefore, we drew on literature on other models of learning from, for example, Germany and Italy that had close affinity to AI. The majority of the literature from Germany which considers learner engagement has a focus on inspiring young people's interest in areas chosen by adults. Incorporating learners' interests is advocated

by some authors (e.g. Schrittmesser, Köhler and Holzmayr, 2019) and is seen by some as a way of overcoming barriers to learning (Fischer et al, 2014). Self-designed learning, as part of a learning environment to promote independent learning dispositions, is advocated by Schreder and Brömer (2009). There is also some evidence of small-scale pockets of practice where learner agency and involvement in making choices about their learning is becoming embedded in practice in Italy (e.g., Gruppo Locale di Cittadinanza Attiva - Progetto A Scuola di Partecipazione), but again this is not widely used in secure youth justice settings.

Work by the United Nations Educational, Scientific and Cultural Organization, Italy, as part of the European ‘Ark of Inquiry’ project, concluded that an inquiry-based approach can positively impact student interest and teacher motivation (Ark of Inquiry, n.d.).

Gilardi and Lozza (2009) suggest that an inquiry-based approach can positively effect student attitudes in higher education. The positive impact of inquiry-based learning in science education is recognised in both Italian literature (Harlen, 2013), and in Spain (Crujeiras-Pérez and Jiménez-Aleixandre, 2017). The affinity of inquiry-based learning with science education reflects the scientific method of hypothesis testing, whilst also emphasising active participation and discovery of new knowledge for the learner (Pedaste et al, 2015). There is, however no literature in direct relation to AI emerging, as yet, from our participating countries.

Learner (re)engagement

Fredricks et al (2004), in their seminal review, sought to bring together much of the emerging literature on engagement in a bid to define the concept. They described engagement to be a complex multidimensional construct consisting of three main components, the behavioural, the cognitive and the emotional (affective). Research

evidence has shown that the most important component for learning is the emotional component which impacts behavioural engagement (Skinner et al., 2008; ahmed Shafi, 2020). Whilst Fredericks et al's (2004) three-component model is well established in the engagement literature, Reeve & Tseng (2011) argue for a four-component model. They added an *agentic* component of engagement, emphasising learner involvement where learners don't just react but *pro-act* too. Garlick (2008) supports the agentic role of learners, suggesting learner decision-making leads to greater success. Such proactivity can transform a learning activity in several ways to make it more engaging, to personalise it, to transform it. Agency thus refers to the individual learner's intentionality, proactivity and constructive contribution in a learning situation.

This four-component model could be useful for the custodial setting as their classrooms consist of learners with diverse educational experiences, ages and abilities (HM Inspectorate of Prisons, 2014). To address the range of needs, lessons in secure settings tend to be less structured than a mainstream setting with flexibility to be responsive to the needs of learners and the opportunity for educator creativity (Deakin Crick, Goldspink and Foster, 2013). Flexibility combined with creativity create conditions for agentic involvement (Reeve & Tseng, 2011). For example, flexible lessons can enable a teacher to explore student interests as a way to engage and generate agency within the learner by tapping into their curiosity and value for a task as well as reflecting the developmental needs of the learners (Skinner et al, 2008). Behan (2014) pointed out how taking an anthropocentric (authentic) approach can both engage learners and be transformative. This suggests that the four-component model approach, encompassing agency, could be useful in the secure context with the nature of its diverse learners and the need for flexibility. This presents an opportunity for re-engagement. In order to

assess the extent of the development of the learners' journeys, it was necessary to employ a relevant measure for use before and after the AI which would be useful for both the learner and this study. We used the concept of learning power to do this.

Learning Power

The concept of Learning Power (Claxton et al, 2011) is closely aligned with AI, with its focus on the skill of learning how to learn. The Learning Power approach aims to support positive learning attitudes and dispositions (Deakin Crick, Goldspink and Foster, 2013) and proponents argue that the assessment of Learning Power is an important element in a learning journey which is mentored (Deakin Crick, 2007). An online tool, Crick Learning for Resilient Agency survey (CLARA), for the dynamic assessment of Learning Power, has been developed using seven learning power dimensions which emerged after almost two decades of research (Deakin Crick et al 2015) (see paper for detailed description and table below for an overview): Sense making, Mindful agency, Curiosity, Creativity, Belonging, Collaboration, Hope and Optimism.

[INSERT TABLE ii]

An eighth, Orientation to Learning, has a bi-polar construct where the middle zone, being open and ready to learning, is considered the optimal state. These are assessed using a Learning Journey Platform (LJP), through a 62-question survey which is then analysed and plotted in diagrammatical form to identify an individual's learning power, which can then be returned to as a way of plotting learning power development. In essence, a learner can 'see' their learning power against the seven dimensions before

and after the AI process, enabling a visual (and quantitative) way to represent their journey.

[INSERT FIGURE i]

Research Questions

Given the literature reviewed in this paper there is a need for more work on re-engaging children and young people in youth justice settings with education and learning.

Exploring more widely the impact of AI on educators and learners is also needed and therefore, the research questions (RQs) explored in this Project included:

1. What were the behavioural, cognitive and affective impacts of using AI on the young people?
2. Over the period of the project, did the young peoples' learning skills and attributes change as reflected in the Learning Power Journey and how did they perceive this?
3. What are transnational educators' perceptions of the effectiveness of AI as a pedagogical tool for 're-engaging' and supporting young people?
4. How have transnational educators' understanding of pedagogical approaches with the young people changed as a result of using AI?

Methodology

The process

The RENYO Project developed a Training Pack to equip Educators working with young people in custodial and other youth justice settings on the principles of Authentic Inquiry (AI). Part of this 2-day training was for educators to conduct their own AI as a learner, before then training further educators (Train the Trainer). These educators then

utilised the AI methodology with the young people they worked with. Any artefact produced by the young people was the property of the participant and permissions to display were taken from them in accordance to the ethical principles of the study.

The Learning Journey Platform (LJP) was introduced to the educators as a tool that facilitated users' reflection about themselves as a learner whilst at the same time enabling the collection of pre and post quantitative data. The platform and surveys were translated into the languages of the participating countries. Integrity of the translations were ensured through the method of 'back translation' (Harkness, 2003). The platform securely stored numerical data of users' learning power profiles for further analysis off-line. Both educators and YPs conducted the survey both before and after their AI experience.

Qualitative data via semi-structured interviews were conducted with both young people and the educators. Not all settings gave permission for audio recordings and in those instances the interviewer relied on making notes and then immediately writing up the interview in more depth. If another member of staff were available, they would sit in to make the notes. In this way, the data quality and quantity was variable across the sample. However, as this is an under-researched group, any data that can be captured has particular value.

The sample

A total of 82 educators and 73 YPs were recruited through the participating organisations. All educators conducted at least one LJP and 51 educators and 58 YPs conducted 2 or more LJPs which contributed to the quantitative data samples.

Qualitative data were gathered using semi-structured interviews from 16 of the educators engaged in the RENYO programme. Nine were from Italy, 3 from the UK and 4 from Spain. Two further educators and one school leader were also interviewed from Germany. The educator interviews, conducted by experienced personnel from within the countries, focussed on two key areas, firstly the effect that the use of AI had on learners (RQ2) and secondly whether involvement in the RENYO project and becoming an AI trained educator had impacted upon their pedagogical approach (RQ 2 and 3).

Semi structured interviews were conducted to gather data from 14 young people across the participating countries. A summary of the young people who participated in the AI, according to age, gender, type of custodial setting and country is available in Table 2. Ethical approval was gained by the University Ethics Panel of the project leaders and data gathered and analysed in accordance to the principles of confidentiality, anonymity and the right to withdraw. In addition, specific and potential ethical issues for this particular young person cohort were considered (ahmed Shafi, 2020)

[INSERT TABLE ii]

The analysis

The LJP data were analysed for descriptive and inferential statistics using SPSS software. The interview data were analysed using Nvivo as a data management tool. The codes for both sample sets were predetermined according to the research questions and further codes were added inductively as the data were analysed to ensure that important themes raised in the data could be captured. It was decided by the Project team that the qualitative data be translated into English for consistency of coding.

Findings from the quantitative data

Young people

The objective of the quantitative data collection and analysis was to have a relevant quantitative measure that would align with AI and the theoretical framework of engagement under the concept of learning power. It aimed to answer the following research question (RQ2):

Over the period of the project, did the young people's learning skills and attributes change as reflected in the LJP (and how did they perceive this)?

There were 73 young participants from Italy, Spain, Germany and the UK who completed at least one learning power profile. Of these, 58 participants subsequently completed a second learning power profile. The primary reason a participant did not complete a second profile after their AI was due to leaving the custodial setting before the second survey was due.

Changes in YPs' learning power before and after doing AI

The score distributions of young participants' learning power before and after doing AI are compared using scatter- and box-plots in the Figure 2, then in numbers in Table 3. The mean scores appear to have increased from Time 1 (before doing AI) to Time 2 (after doing AI) on all learning power dimensions except Orientation to Learning.

[INSERT FIGURE ii]

[INSERT TABLE iii]

These changes in the mean scores are assessed using paired t-test, the results of which are summarised in Table 4. The changes in the learning power dimensions Mindful Agency, Creativity, Hope and Optimism, Belonging, and Collaboration were statistically significant at the threshold of $p < 0.05$. The increases in the dimension of Sense Making and Curiosity do not reach the threshold of statistical significance, but it is worth noting that Sense Making was a strength from the outset.

Following the same line of thought in connecting these changes over time with the relative strengths and weakness of this cohort of young participants from the outset, one would observe, in particular, the increases in Belonging and Hope and Optimism which were further developed from a relatively high level already at the beginning.

Conversely, the experience in AI seems to have relatively limited effect on Curiosity even though there is a large room for development.

Orientation to Learning has a bi-polar construct where the middle zone, being open and ready to learning, is considered the optimal state for learning. The average position of these young participants did not move much between Time 1 and Time 2. This could be because the real time between Time 1 and 2 is not as long as would be needed to develop this dimension.

[INSERT TABLE iv]

In summary, the LJP data show that as a cohort the YPs reported a significantly more positive perception about themselves as a learner after having undertaken an AI. This was detected by improved overall scores between Time 1 and Time 2. However, despite the positive overall effect, individuals' experience varies as many of them reported a decline in some learning power dimensions which emphasises how individual learners had different experiences of the different dimensions. This may have been as a result of differences of the effect of the educators and the initial starting points.

Educators

Changes in educators' learning power before and after doing AI

There were 82 educator participants from the participating countries who completed at least one learning power profile. Of these, 51 participants completed a second learning power profile.

The score distributions of educators' learning power before and after doing AI are compared using scatter- and box-plots in the figure below, then in numbers in Table 5 that follows. The mean scores appear to have increased from Time 1 (before doing AI) to Time 2 (after doing AI) on all learning power dimensions except Orientation to Learning, which remained at a similar level.

[INSERT FIGURE iii]

[INSERT TABLE v]

The changes in the mean scores were assessed using paired t-test, the results of which are summarised in the Table 6 below. Significant rises in mean scores were observed in the dimensions of Mindful Agency, Curiosity, Creativity, Hope and Optimism, Belonging, and Collaboration. Only the increases in the dimension of Sense Making did not reach the threshold of statistical significance, but it is worth noting that Sense Making was already their strength from the outset.

Orientation to Learning has a bi-polar construct where the middle zone, being open and ready to learning, is considered the optimal state. The average position of these educators did not move much between Time 1 and Time 2. Although the mean score remains similar from Time 1 to Time 2, there were 14 out of 49 educators reported a shift of becoming more persistent while 21 reported themselves as becoming more dependent.

[INSERT TABLE vi]

In summary, the educators as a cohort reported a significantly more positive perception about themselves as a learner after having undertaken an AI. However, despite the positive overall effect, individuals' experience varied as many of them reported a decline in some learning power dimensions.

Findings from the qualitative data

Young people

A number of themes emerged from the analysis of the qualitative data from 14 young

people from the participating countries. These were engagement, the impact of the mentor, challenges experienced and the perception of change.

Engagement

This specifically related to the research question (RQ1):

What were the behavioural, cognitive and affective impacts upon the YO of using AI.

It was found that the emotional impact was pointed out in 13 interviews and, if drawing on the number of references (32) had by far, the strongest impact. The behavioural component in comparison was coded by half the participants (7), with 9 references. The cognitive component of engagement was referred to by 10 participants with 20 references.

I think I have learned something new about my topic or even about myself that I didn't know before: asking questions, being braver, getting deeper into a topic, that you can be excited about something, that you can accomplish something, that your interests matter, that you need to work on some things to help you learn. (It, YP)

Although I have improved in other areas. It also depends on how I feel (emotionally), that could lead to different results. I have also continued to have certain weaknesses, but I think that in the future I can improve these. (Sp, YP)

I enjoyed the topic. Obviously, I got to choose the topic and that so, I kind of enjoyed doing about what I wanted to focus on, you know, what I like. (UK, YP)

This suggests that the greatest impact appears to be in emotional component of engagement because of the way the participant felt shaped how they engaged. This was reflected across the dataset and was not specific to the background (country) of the young person.

The impact of the mentor

The role of the mentor/educator was significant for 8 participants, with 9 references, and just 1 participant indicating they made no difference.

He [mentor] has explained concepts to me which were complex and has helped by sharing personal examples with me. (Sp, YP)

The data show that 4 of the 9 participants were not likely to share the AI with others unless they were also engaged in AI and most shared only with their mentor. This suggests that sharing the AI only occurs with those they trust or are confident with. This was often because the topics chosen were very personal to the YP.

Challenges

Challenges that emerged related to issues such as the use of the LJP in terms of language or not understanding the spider diagram itself. Other things centred around the number of questions posed, though whether this was on the LJP or the process of AI was not clear from the data. The quote below reflects the challenges from the perspective of one young person in Spain who pointed out the challenges of the centre itself.

The fact that I didn't understand certain aspects of the results of my spider diagram (referring to his LJP). The fact that it is difficult to do it here (referring to the institution). (Sp, YP)

Another challenge that emerged was that of having appropriate time to do the AI and this was reflected across the dataset.

Perception of change

The extent of reflections overall indicated how the AI had made a difference to how they viewed themselves in terms of learning. The perception of change in their skills or attributes or just how they felt about themselves was prevalent in 12 of the 14 participants with over 30 references. This related largely to positive change and that they would recommend AI to other (interested) young people.

Learning something new, perhaps without this work I would have never done this search and realised how important this topic is for me. (Sp, YP)

I'd advice to do it because it helps you reflect on yourself. (It, YP)

There were a more positive set of responses amongst those from the Spanish and Italian participants and 3 referred to how it could help with their future, whereas the UK participants were more cautious.

Um, like I said before like, personally within myself I don't really feel like it has helped me but at the same time on paper it has helped me, so maybe it has helped me but I am just not seeing it yet. (UK, YP)

Summary

In summary, the data suggest the young people across the sample felt that the AI process was successful in re-engaging them and that it made a difference. This was supported by the quantitative data from the pre and post LJP for both young people and educators. The AI had the greatest impact on the emotional component on engagement and this came through the qualitative data and was the case across the sample.

Educators and Effect of Authentic Inquiry

Thirteen of the 16 mentors interviewed confirmed that the AI approach had supported the re-engagement of young people with learning.

Seeing that they can get interested and involved in something that they like. At the start I thought that they would not get involved, nor look for so much information, and that they would give up, but in the end the opposite happened. (Sp)

...she had commitment and engagement. At the beginning she saw it as something she had to do, then she did it with more and more commitment (It)

Mentors also related that the AI process had supported the young people in other ways, including developing self-awareness and positively changing their perspective of themselves as learners, and improving the relationships between learner and mentor,

The young person also learnt from the process about herself and her own learning process, what works with her weaknesses when it comes to her strengths as well (UK)

It has helped the young people to think about themselves, be more prepared, recognise their issues or needs and see the support points. Some have worked more autonomously. (Sp)

One Italian mentor conveyed that the process demanded a particular cognitive ability in order for a positive impact to take place, whilst another Italian mentor talked of the breakdown of the project due to the young person becoming bored. The two German mentors stated that the AI process had resulted in no change for the young people, relating reasons which conveyed could be interpreted as fixed view of motivation which may have contributed to other systemic and environmental barriers to facilitating full involvement in the process. In one interview, the interviewer prompted and questioned in a way in which the mentor ceded that a positive change had taken place for some learners.

This suggested that the motivation and attitudes of the educators, perhaps shaped by culture and context was an important element in how educators approached AI with the young people.

Impact on Pedagogical Approach

Ten of the 16 mentors identified a positive change in their own pedagogical practice as a result of the project and their use of AI.

Somehow it made me ask more questions. Now I don't just see things as they appear to be. (It)

It has helped me to realise the importance of investigating oneself, of dedicating time to listening to myself. (Sp)

Two Italian mentors and the German school leader stated their practice had not changed and indicated that the AI process was similar to other methods they already used.

Discussion of Results

This research sought to identify the extent to which young people in conflict with the law can be re-engaged with education and learning through the use of AI.

RQ2 referred to whether young peoples' learning skills and attributes changed as reflected in the LPJ. The pre and post quantitative data from the LJP profiles demonstrated a positive change overall, though there was a decline in some learning power dimensions. The analysis is not able to claim that improved learning power at Time 2 is a causal effect of AI, as it cannot be ruled out that the improvement was due to other factors which might have happened regardless of their participation in the project. However, these quantitative findings offer confidence to any further study on the effectiveness of using AI to re-engage young people in custodial settings in education and learning.

The qualitative data identified positive changes for learners and a positive perception of the AI process on the part of learners and educators across this transnational cohort,

thereby supporting previous research by ahmed Shafi (2018, 2020). Particular improvement was evident for the emotional impact alongside positive results for behavioural and cognitive impact. An important finding was that this was the case across the cohort in Spain, Italy and the UK, again supporting and extending previous research by ahmed Shafi (2018, 2020) which only focused in the UK context. This specifically relates to RQ1 in this study which was concerned with the impact on the behavioural, cognitive and affective components of engagement. Positive changes in educator self-perception and their own learning dispositions were also evidenced as a result of carrying out their own AI and the process also improved relationships between educators and the young people. The role of the mentor was important in facilitating the process and it was the opportunity to do something like AI that was novel and focused on authenticity that had the greatest impact. This responded to RQ3 which was concerned with how educators' perceptions on the effectiveness of AI as a pedagogical tool for re-engaging and supporting the young people.

Responding to RQ3 and RQ4, regarding educators' perceptions of the effectiveness of AI and changes in pedagogy, there were notable differences between educators in terms of whether AI was an effective tool for re-engagement and some of this appeared to be connected to the attitudes and cultural or pedagogical contexts of the educators, particularly illuminated by the data from the German cohort. This was not replicated with the young people, where there appeared to be no such differences. There also seemed to be no difference with regards to age or ability of the young people on the extent of the engagement (though specific data on ability was not collected in this research) which other research such as Harder et al (2014) had found.

The findings thus support that of the new and emerging literature by, for example, Szifris et al (2018) and ahmed Shafi (2020) that a more personal development approach to re-engagement with education and learning is important. The use of AI to identify a 'hook' (Szifris et al, 2018) was a core element of the success of AI in the engagement of the young people. The findings also support prior research on engagement whereby the use of the 'hook' (Szifris et al, 2018) can be illustrated in the emotional component is particularly important for not just engagement (ahmed Shafi, 2020) but also transformation (Blomberg et al, 2012; Behan, 2014). The qualitative data also demonstrated the depth of transformation that young people felt at a personal level, enabling them to explore aspects of the self as a learner, which revealed a sense of agency in learning as highlighted by Reeve & Tseng (2012) and Garlick (2008). For young people in conflict with the law this is particularly poignant when the background and educational experiences of these young people are considered, which may not have presented the opportunities for a 'hook' that enabled that agentic and personalised learning which draws on their 'lifestory' (Sfard and Prusak, 2005). This research project demonstrates how taking time to establish a 'hook' through, for example, AI can be an effective way for re-engagement of those disengaged with learning. This could contribute to transformational opportunities going forwards, because learning may not be as far removed a concept as it may have been in earlier education experiences and Knight (2014) has indicated that those who engage with education whilst in custodial settings are more likely to do so when back in the community. Thus, to elongate this transformation ongoing engagement opportunities are essential (Lanskey, 2015). Disengagement, however, is different for those with low engagement because disengagement means that the learner has in some ways 'detached' from the learning situation (Earl, 2017) and so it requires more than just a change in pedagogical

technique, rather it requires a different and innovative approach altogether. This anthropocentric approach (Behan, 2014) has been the critical element in the re-engagement.

However, it is to be noted that whilst most educators also felt it to be transformative for them personally and pedagogically, for some this was not the case. The findings illustrate how the educator's role is critical in how they mentor the young person and a belief in the process is foundational to the success of this approach – as illustrated in the qualitative data from the young people. This points to the need for quality training and development for educators which takes the same anthropocentric approach in order to get the 'buy-in' for educators. Without this, the success of the AI may be limited, given the important (mentoring) role of the educator.

It is also notable that not all learning power dimensions improved and this could be down to a number of factors including the baseline level for that dimension, which in some cases was already at a good level. However, the availability of this data can give an educator or education leader much needed understanding of the areas in which learners could benefit from additional support. This can support the planning of interventions and targeting pedagogical techniques to develop those specific areas. This in itself is novel and not many secure or youth justice settings have the tools to be able to provide such a targeted and individual approach. However, if settings are serious about the transformative power of education then investing in the training and development of their educators and pedagogical tools and methodologies has to form part of the suite of educational provision for young people who find themselves in conflict with the law.

Limitations

Given the secure custodial nature of the settings, the multiple languages of the data and the challenging backgrounds of the young participants, there are a number of relevant limitations worth being aware of. For example, the qualitative data from non-English speaking participants had to be translated and there may be some loss of richness in the data due to this. In addition, the verbal communication of the YPs is limited as outlined in the literature review, but could also have been due to the novel situation they had been exposed to, or it could be lost in translation. Despite this as a particular difficulty the Project team were aware of, it was decided that having data translated in-country enabled a check for meanings and therefore minimised loss during translation (Larkin et al, 2007). Nevertheless, sufficient data were collected to enable analysis and gain an understanding of the impacts of AI on the YPs in terms of behavioural, cognitive and affective components as well as the extent of learning and skills that they attributed to the experience.

Implications for Practice and Conclusions

Implication for practice emphasise the vital role of educators and builds on the calls made by e.g. Jeanes (2009), about the need for greater training, development and morale boosting for educators in youth justice settings where turnover can be high often compounded by a lack of opportunity and constrained resources. However, this EU Project demonstrated how (although not explicit in the data), context and culture can sometimes be a barrier (and is therefore the focus of an upcoming research paper). It is therefore important to draw on and consider the wider cultural and political context to ensure success in the introduction of new methodologies. It also requires further investigations in future studies to learn how educators can optimise positive impact and

ensure all learning power dimensions are developed. It is likely to also be fruitful to understand the experience of those who reported some declines and contrast their experiences with those who reported many rises, as this was beyond the scope of the current project.

A further implication for practice is the importance of utilising innovative pedagogical tools. Many mainstream educational settings feel unable to take educational ‘risks’ for fear of negatively impacting attainment metrics. However, in youth justice settings taking such ‘risks’ may be easier as, whilst youth justice settings are also subject to assessment, regulations and other metrics, the understanding of the many challenges that these young people may have leads to somewhat different expectations. In other words, because things have already gone so wrong for these young people, taking risks with innovative approaches is worth exploring because we already know that mainstream efforts have failed. This Project represents how a new and alternative approach can have transformative results and is therefore worth using, particularly as it draws on learner agency (Reeves & Tseng, 2014) – something that the young people feel they have lost in mainstream educational provision (ahmed Shafi, 2018).

In conclusion, it is important to emphasise how this research project has shown that re-engaging disengaged young people in conflict with the law with education and learning is possible with the right pedagogical approach and tools, through identifying, valuing and developing their own interests. And that this is possible even in custodial and restrained settings in different cultural contexts with different youth justice approaches. Further research on how to develop the important role of educators is required as well as how to work on specific learning power dimensions. This will enhance the educational

opportunity that a methodology like AI brings to some of the most troubled young people in our societies.

References

Ark of Inquiry (no date) *Our Vision*. Available at: <https://sisu.ut.ee/ark/vision> Accessed 25/10/21

ahmed Shafi (2018). Re-engaging young offenders with education in the secure custodial setting. In *Children and Their Education in Secure Accommodation* (pp. 277-298). Routledge.

ahmed Shafi (2020). The impact of the secure custodial setting on re-engaging incarcerated children with education and learning—A case study in the UK. *International Journal of Educational Development*, 76, 102190.

ahmed Shafi (2020). Researching young offenders: navigating methodological challenges and reframing ethical responsibilities. *International Journal of Research & Method in Education*, 43(1), 1-15.

ahmed Shafi, Case, S.& Little, R. (2021). Children's education in secure custodial settings: Towards a global understanding of effective policy and practice. *International Journal of Educational Development*, 82, 102379.

Behan, C. (2014). Learning to escape: Prison education, rehabilitation and the potential for transformation. *Journal of Prison Education and Reentry*, 1(1), 20-31.

Blomberg, T. G., Bales, W. D., & Piquero, A. R. (2012). Is educational achievement a turning point for incarcerated delinquents across race and sex?. *Journal of youth and adolescence*, 41(2), 202-216.

Coates, S. (2016). Unlocking potential: A review of education in prison.

Claxton, G. Et al (2011) *The Learning Powered School: Pioneering 21st Century Education*. Bristol: TLO Ltd.

Cripps, H. and Summerfield, A. (2012) 'Resettlement provision for children and young people' and 'The care of looked after children in custody': Findings from two HMIP thematic reviews', *Prison Service Journal*, 201, 31-8.

Crujeiras-Pérez, B. and Jiménez-Aleixandre, M.P. (2017) 'High school students' engagement in planning investigations: findings from a longitudinal study in Spain', *Chemistry Education Research and Practice*, 18, 99-112.

Deakin Crick, R. (2007) 'Learning how to learn: the dynamic assessment of learning power', *The Curriculum Journal*, 18(2), 135-153.

Deakin Crick, R. (2009) 'Inquiry-based learning: reconciling the personal with the public in a democratic and archaeological pedagogy', *The Curriculum Journal*, 20(1), 73-92.

Deakin Crick, R. (2010). 'Deep Engagement as a Complex System: Identity, Learning Power and Authentic Enquiry', in Christenson, S.L., Reschly, A.L. and Wylie, C. (Eds.) *Handbook of Research on Student Engagement*. Pp.675-694. New York: Springer.

Deakin Crick, R., et al (2010). *Learning futures*. London: Paul Hamlyn Foundation.

Deakin Crick, R., Goldspink, C., & Foster, M. (2013) *Telling identities: learning as script or design? Learning Emergence Report*.

Deakin Crick, R., Huang, S. ahmed Shafi, A. & Goldspink C. (2015). Developing resilient agency in learning: The internal structure of learning power. *British Journal of Educational Studies*, 63(2), 121-160.

Earl, S. R., Taylor, I. M., Meijen, C., & Passfield, L. (2017). Autonomy and competence frustration in young adolescent classrooms: Different associations with active and passive disengagement. *Learning and Instruction*, 49, 32-40.

Fredricks, J. A., Filsecker, M., & Lawson, M. A. (2016) 'Student engagement, context, and adjustment: Addressing definitional, measurement, and methodological issues', *Learning and*

Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of educational research*, 74(1), 59-109.

Fischer, C. (2014) *Individuelle Förderung als schulische Herausforderung*. Berlin: Friedrich-Ebert-Stiftung. *Instruction*, 43, pp.1-4.

Garlick, S. (2008) 'Can we hear the student voice?', *Management in Education*, 22(3), pp.15-18.

Gilardi, S. and Lozza, E. (2009) 'Inquiry-based learning and undergraduates' professional identity development: Assessment of a field research-based course', *Innovative Higher Education*, 34(4), pp.245-256.

Graham, L. J., et al. (2015). To educate you to be smart': Disaffected students and the purpose of school in the (not so clever) 'lucky country'. *Journal of Education Policy*, 30(2), 237-257.

Harder, A. T., et al (2014, April). Education secured? The school performance of adolescents in secure residential youth care. In *Child & youth care forum* (Vol. 43, No. 2, pp. 251-268). Springer US.

Harkness, J. (2003) 'Questionnaire translation'. in J. Harkness, F. J. R. van de Vijver, and P. Ph. Mohler (Eds.), *Cross-cultural survey methods*. (pp. 35-56). Hoboken, NJ: Wiley.

Harlen, W. (2013) *Assessment & inquiry-based science education*. Triestly, Italy: Global Network of Science Academies (IAP) Science Education Program (SEP).

Hirschfield, P. J., & Gasper, J. (2011). The relationship between school engagement and delinquency in late childhood and early adolescence. *Journal of Youth and Adolescence*, 40(1), 3-22.

Houchins, et al (2018). The efficacy of a literacy intervention for incarcerated adolescents. *Residential Treatment for Children & Youth*, 35(1), 60-91.

Hughes, J., et al (2018). Learning disability services: User views on transition planning. *Tizard Learning Disability Review*.

Instituto Nacional de Estadística (2021) Estadística de condenados: Menores. Available at: <https://www.ine.es/dynt3/inebase/es/index.htm?padre=4746&capsel=4022> Accessed 15/10/21.

Jeanes, J., McDonald, J., & Simonot, M. (2009). Conflicting demands in prison education and the need for context-specific, specialist training for prison educators. *Teaching in Lifelong Learning*, 1(1), 28–35.

King, A. (2015). Fostering in England, 2014-15. Retrieved from http://dera.ioe.ac.uk/24918/1/Fostering_in_England_2014-15.pdf

Knight, V. (2014). Framing Education And Learning In Youth Justice In England And Wales: Some Outcomes For Young Offender Intervention. *British Journal of Community Justice*, 12(1).

Lanskey, C. (2015). Up or down and out? A systemic analysis of young people's educational pathways in the youth justice system in England and Wales. *International Journal of Inclusive Education*, 19(6), 568-582.

Larkin, P.J., Dierckx de Casterle, B. and Schotsmans, P.(2007) 'Multilingual Translation Issues in Qualitative Research: Reflections on a Metaphorical Process', *Qualitative Health Research*. 17,468.

Little, R. (2015). Putting Education At The Heart Of Custody? The Views Of Children On Education In A Young Offender Institution. *British Journal of Community Justice*, 13(2).

National Statistics (2021) Children Accommodated in secure children's homes. Available at: <https://explore-education-statistics.service.gov.uk/find-statistics/children-accommodated-in-secure-childrens-homes/2021> Accessed 15/10/21.

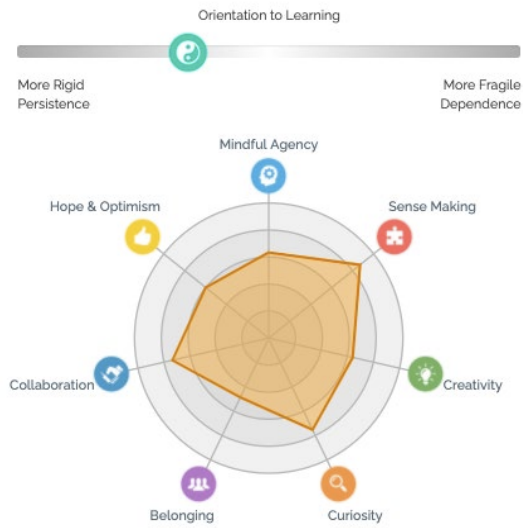
Pedaste, M., Mäeots, M., Siiman, L. A., De Jong, T., Van Riesen, S. A., Kamp, E. T., ... & Tsourlidaki, E. (2015). Phases of inquiry-based learning: Definitions and the inquiry cycle. *Educational research review*, 14, 47-61. Doi: transform10.1016/j.edurev.2015.02.003

Reeve, J., & Tseng, C. M. (2011). Agency as a fourth aspect of students' engagement during learning activities. *Contemporary Educational Psychology*, 36(4), 257-267.

- Schreder, G. And Brömer, B. (2009) *Lehren und Lernen: Erläuterungen und Praxisbeispiele zum Qualitätsbereich VI des Hessischen Referenzrahmens Schulqualität*. Wiesbaden, DE: Institut für Qualitätsentwicklung.
- Schrittesser, I., Köhler, J. And Holzmayer, M. (2019) *Lernen verstehen - Unterricht gestalten : Lernen und Unterricht aus pädagogischer Perspektive*. Universität Wien und BMBWF, 2019. Veröffentlichung: Working Paper ISBN 978-3-8252-5592-3
- Sfard, A. and Prusak, A., 2005. Telling identities: In search of an analytic tool for investigating learning as a culturally shaped activity. *Educational researcher*, 34(4), pp.14-22.
- Skinner, E., et al (2008) 'Engagement and disaffection in the classroom: Part of a larger motivational dynamic?', *Journal of Educational Psychology*, 100(4), pp.765-781.
- Skinner, E.A., Kindermann, T.A., Connell, J.P. and Wellborn, J.G. (2009) *Engagement and disaffection as organizational constructs in the dynamics of motivational development*.
- Steele, J. L., Bozick, R., & Davis, L. M. (2016). Education for incarcerated juveniles: A meta-analysis. *Journal of Education for Students Placed at Risk*, 21(2), 65-89.
- Szifris, K., Fox, C., & Bradbury, A. (2018). A Realist Model of Prison Education, Growth, and Desistance: A New Theory. *Journal of Prison Education and Reentry*, 5(1), 41-62.
- Taylor, C. (2016). Review of the youth justice system in England and Wales. Youth Justice Board
- Wexler, J., Pyle, N., Flower, A., Williams, J. L., & Cole, H. (2014). A synthesis of academic interventions for incarcerated adolescents. *Review of Educational Research*, 84(1), 3-46.

Figures

Figure 1. An example of a Learning Power Profile



An illustrative sample of a learning power profile produced by the learning journey platform

Figure 2. The score distributions of young participants' learning power before and after doing authentic inquiry are compared using scatter- and box-plots

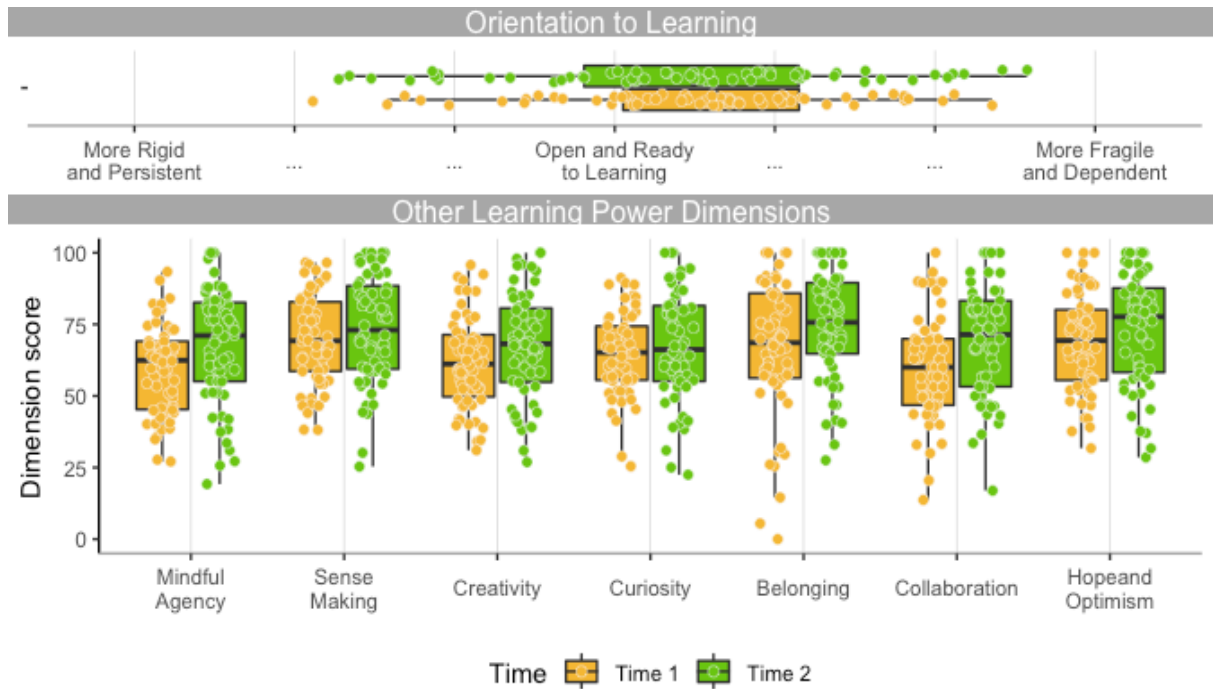
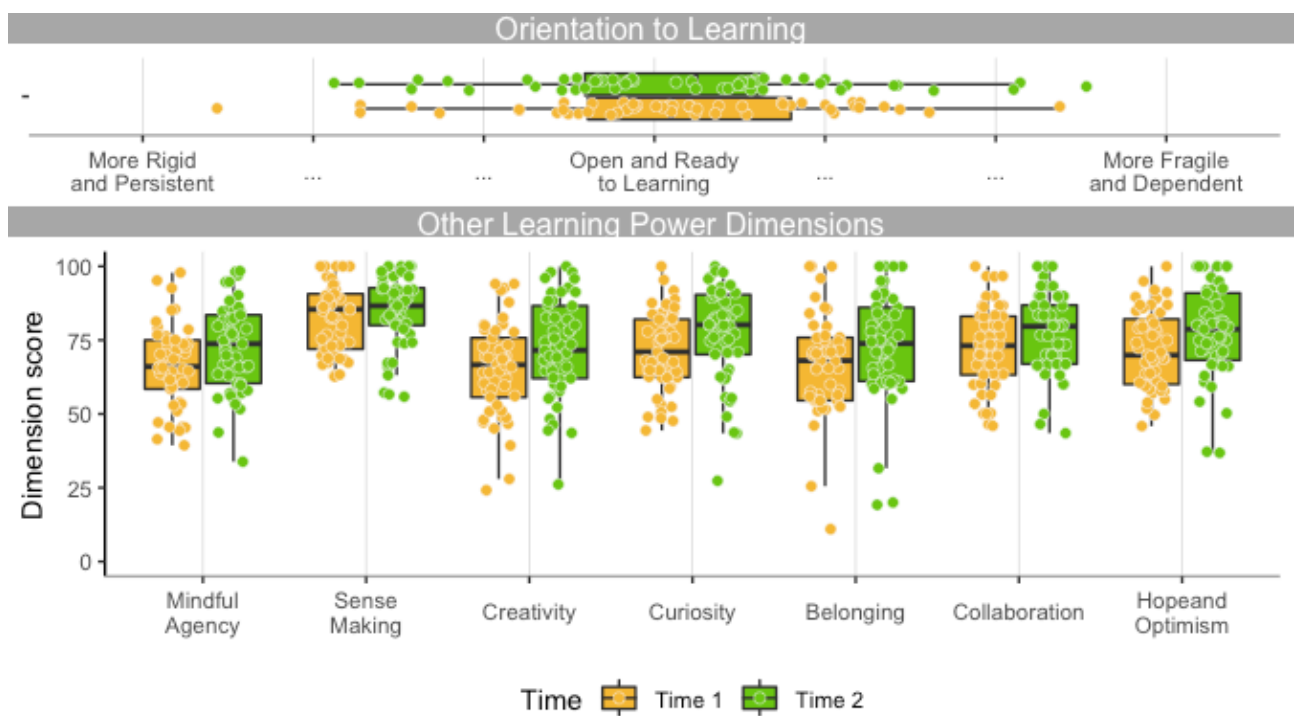


Figure 3. The score distributions of educators' learning power before and after doing authentic inquiry are compared in the scatter- and box-plots



Tables

Table 1. Partner country contexts and youth justice contexts

	UK (2020 ¹)	Italy (2020 ²)	Spain (2019 ³)	Germany (2021 ⁴)
Age of criminal responsibility	10	14	14	14
Types of settings	Secure Children's Homes Young Offenders Institutions Secure Training Centres	Secure private residential communities Juvenile detention centres Public residential communities	Juvenile detention centres Placement within communities	Closed institutions Open Institutions "Free Form" community settings
Numbers of children (aged under 18) with custodial sentences	472 142 additional children in Secure Childrens Homes	6509	14,112	359 of whom 14 were in open institutions
Gender split of children with custodial sentences	Male 62% Female 38%	Male 90% Female 10%	Male 79% Female 21%	Male 95% Female 5%
Ethnicity of children with custodial sentences	White 50% Black, Asian, Mixed & Other 50%	Not available	Not available	Not available

1. Youth Custody Service (2021) Monthly Custody Report August 2021: England and Wales. Available at: <https://www.gov.uk/government/statistics/youth-custody-data> Accessed 15/10/21.
2. Dipartimento per la Giustizia Minorile e di Comunità. (2021) Minorenni e giovani adulti in carico ai Servizi minorili - Analisi statistica dei dati. Available at: https://www.giustizia.it/cmsresources/cms/documents/Analisi_Servizi_minorili_15.06.2021.pdf Accessed 20/7/21.
3. Instituto Nacional de Estadística (2021) Estadística de condenados: Menores. Available at: <https://www.ine.es/dynt3/inebase/es/index.htm?padre=4746&capsel=4022> Accessed 15/10/21.
4. Statistisches Bundesamt (2021) Bestand der Gefangenen und Verwahrten in den deutschen Justizvollzugsanstalten nach ihrer Unterbringung auf Haftplätzen des geschlossenen und offenen Vollzugs. Available at: <https://www.destatis.de/DE/Themen/Staat/Justiz-Rechtspflege/Publikationen/Downloads-Strafverfolgung-Strafvollzug/bestand-gefangene-verwahrte-xlsx-5243201.html> Accessed 15/10/21.

Table 2. The dimensions of Learning Power descriptors

Learning Power dimension	Descriptor
Optimism and hope	Having the optimism and self-confidence to believe that I can learn and achieve over time. Having a growth mindset; believing that I can generate my own new knowledge for what I need to achieve.
Sense Making	Making connections between what I already know and new information and experience. Making meaning by linking my story, my new learning and my purpose.
Curiosity	Wanting to get below the surface and find out more and always wondering 'why?' and 'how?'
Creativity	Using my intuition and imagination to generate new ideas and knowledge. Taking risks and playing with ideas and artefacts to arrive at new solutions.
Mindful Agency	Taking responsibility for my own learning over time, through defining my own purposes, understanding and managing my feelings, knowing how I go about learning and by planning my learning journey carefully.
Collaboration	Being able to work with others to learn, to collaborate and co-generate new ideas and artefacts. Being able to listen and contribute productively to a team.
Belonging	Feeling part of a learning community, at school or work, at home and in my social network. Knowing I have social resources to draw upon when I need them.
Open and ready for learning and change	An emotional orientation of being open and ready to invest in learning, having flexible self-belief, willing to persist and manage any self-doubt. A necessary pre-requisite for developing resilience in learning.

Table 3. Characteristics of young people interviewed

	Italy	Spain	Germany	UK
Age (years)				
12-14	7	0	0	1
15-16	16	1	4	1
17-18	6	9	0	2
19-21	4	3	0	0
Gender				
F	12	1	0	1
M	21	12	4	3
Setting Type				
In a Secure Setting	0	13	0	4
In a Community/School Setting	33	0	4	0

Table 4. Descriptive statistics comparing YPs' learning power profiles on Time 1 and Time 2

Dimension	Time	Mean	Median	Std.Dev	Min	Max	Count
Mindful Agency	1	59.6	62.4	15.7	27.10	93.38	58
Mindful Agency	2	67.3	71.1	20.3	19.22	100.00	58
Sense Making	1	69.7	69.3	15.7	38.10	96.60	58
Sense Making	2	73.1	73.0	18.8	25.34	100.00	58
Creativity	1	61.7	61.1	16.1	31.04	95.74	58
Creativity	2	67.4	68.2	18.7	26.90	100.00	58
Curiosity	1	64.5	65.2	14.5	25.46	91.20	58
Curiosity	2	67.1	66.2	19.8	22.48	100.00	58
Belonging	1	66.7	68.6	24.0	0.00	100.00	58
Belonging	2	74.7	75.7	19.2	27.54	100.00	58
Collaboration	1	60.1	60.0	18.5	13.68	100.00	58
Collaboration	2	69.0	71.4	19.2	16.94	100.00	58
Hope and Optimism	1	68.4	69.3	17.2	31.74	100.00	58
Hope and Optimism	2	73.7	77.7	19.4	28.54	100.00	58
Orientation to Learning	1	58.3	59.5	14.1	21.72	85.36	58
Orientation to Learning	2	56.9	57.4	15.8	24.14	88.64	58

Table 5. Changes in YPs' learning power over time assessed using paired t-test

Dimension	Mean1	Mean2	Std. Dev1	Std.Dev2	mean difference	df	t	p value
Mindful Agency	59.6	67.3	15.7	20.3	-7.72	57	-3.261	0.002
Sense Making	69.7	73.1	15.7	18.8	-3.35	57	-1.318	0.193
Curiosity	64.5	67.1	14.5	19.8	-2.63	57	-1.131	0.263
Creativity	61.7	67.4	16.1	18.7	-5.66	57	-2.475	0.016
Hope and Optimism	68.4	73.7	17.2	19.4	-5.25	57	-2.201	0.032
Belonging	66.7	74.7	24.0	19.2	-7.95	57	-2.290	0.026
Collaboration	60.1	69.0	18.5	19.2	-8.87	57	-3.811	0.0003
Orientation to Learning	58.3	56.9	14.1	15.8	1.37	57	0.704	0.484

Table 6. Descriptive statistics comparing educators' learning power profiles on Time 1 and Time 2

Dimension	Time	Mean	Median	Std.Dev	Min	Max	Count
Mindful Agency	1	66.5	66.1	13.9	39.36	97.88	49
Mindful Agency	2	72.6	73.8	14.8	33.84	98.40	49
Sense Making	1	82.5	85.4	11.4	62.66	100.00	49
Sense Making	2	84.8	86.6	12.2	55.84	100.00	49
Creativity	1	65.2	66.6	15.9	24.18	94.06	49
Creativity	2	72.4	71.6	16.6	26.14	100.00	49
Curiosity	1	71.3	71.0	13.6	44.40	100.00	49
Curiosity	2	77.1	80.2	16.2	27.36	100.00	49
Belonging	1	66.8	68.1	17.2	11.00	100.00	49
Belonging	2	72.8	73.9	18.2	19.20	100.00	49
Collaboration	1	72.6	73.1	13.9	46.00	100.00	49
Collaboration	2	77.4	79.7	13.6	43.50	100.00	49
Hope and Optimism	1	71.9	69.9	13.3	45.88	100.00	49
Hope and Optimism	2	77.7	78.7	15.5	36.82	100.00	49
Orientation to Learning	1	51.8	51.5	14.2	11.54	85.64	49
Orientation to Learning	2	52.9	53.6	14.6	21.82	87.98	49

Table 7. Changes in educators' learning power over time assessed using paired t-test

Dimension	Mean_1	Mean_2	Std. Dev_1	Std. Dev_2	mean difference	df	t	p.value
Mindful Agency	66.5	72.6	13.9	14.8	-6.05	48	-3.039	0.004
Sense Making	82.5	84.8	11.4	12.2	-2.25	48	-1.413	0.164
Curiosity	71.3	77.1	13.6	16.2	-5.80	48	-3.072	0.003
Creativity	65.2	72.4	15.9	16.6	-7.21	48	-3.503	0.001
Hope and Optimism	71.9	77.7	13.3	15.5	-5.76	48	-2.730	0.009
Belonging	66.8	72.8	17.2	18.2	-6.03	48	-3.001	0.004
Collaboration	72.6	77.4	13.9	13.6	-4.71	48	-2.431	0.019
Orientation to Learning	51.8	52.9	14.2	14.6	-1.10	48	-0.600	0.551

