Acquiring Socio-emotional Skills through Digital Badge-Driven Learning: A Case Study of Teachers Experiences in Barbados and Trinidad and Tobago

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SOCIO EMOTIONAL SKILLS

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A Case Study of Teachers' Experiences in Barbados and Trinidad and Tobago

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ABSTRACT

This case study aims to examine how Barbadian and Trinbagonian teachers experienced socio-emotional skill learning through a digital badge-driven learning process and what were teachers' perceptions on how socio-emotional skill training benefitted teaching and learning. The study's focus is on the teachers' reported professional development experiences. Participants (n=148) in this study were from pre-primary, primary, and secondary schools. The case study used a mixed-method approach, including quantitative analysis of simple frequencies and qualitative inductive content analysis based on an online questionnaire. The results indicated that the teachers participating in the programme recognise the importance of socio-emotional aspects in the teaching and learning processes. They further revealed that socio-emotional skill training has the greatest impact on teacher-student interaction, and that such skills should be integrated into daily teaching activities to support students' personal growth and learning in a school community. The study offers practical recommendations for teachers' professional development in Barbados and Trinidad and Tobago.

KEYWORDS

socio-emotional skills   teachers   Barbados

Trinidad and Tobago   digital open badges

1 INTRODUCTION

Accelerated and unexpected changes in society have created the need for children and youth to become more resilient and adaptable. Teachers balance many variables to meet students' socio-emotional, cultural, linguistic, and instructional needs, and are deeply involved in the complexity of the classrooms (Parsons & Vaughn, 2016). Socio-emotional skills are present in the education agenda in Latin America and the Caribbean (LAC), but education systems should continue ensuring that all children and youth develop the socio-emotional skills they need to succeed. More work with teachers is needed, as well as a better presence in school curricula. Now, the issue is of policies interest, but needs to be better developed in the classroom.

The most recent assessment of socio-emotional skills of students in Latin America and the Caribbean was conducted by OREALC-UNESCO in 2019, and it showed that most sixth-grade primary school students in the region gave positive reports of their level of empathy, openness to diversity, and self-regulation. One of the factors associated with these positive results was teacher practices and attitudes. The results revealed that students in schools where teachers show greater interest in students and their well-being report having more socio-emotional skills. Thus, classroom processes—particularly warm, close human relationships that show concern for students—are associated with empathy, self-regulation, and openness to diversity in practically all countries in the region (OREALC-UNESCO, 2021).

Therefore, teachers need to develop their competence to promote socio-emotional skills. Arias Ortiz, Hincapié and Paredes (2020) analysed 12 Latin American educational systems to determine the level of incorporation of socio-emotional skills in educational programs and teacher training. The authors found that in most countries, socio-emotional development has been incorporated into student learning standards and in a cross-cutting manner in the curriculum. However, there is significant heterogeneity in the definitions of socio-emotional skills and in the ways of organising the skills related to socio-emotional development. Few countries define and evaluate socio-emotional skills. Regarding teacher education, only two countries (México and Peru) have established curricula that include both socio-emotional topics and professional development. The authors further found that there are initiatives (such as Programa Construye-T in Mexico or Programa Aulas en Paz from Colombia) to address the topic of socio-emotional skills, but they do not include mentoring or providing feedback to teachers.

In past years, educational researchers and developers have become increasingly interested in how relational models of professional development can be implemented in teacher education. Brauer and Korhonen (2022) show how new kinds of alternative credentials, such as micro-credentials and digital open badges, are a unique approach to professional development. Digital badge-driven processes provide relational, transformative and flexible options for professional competence development as well as a model that provides the badge applicants with an appropriate amount of guidance to achieve their learning objectives (Brauer, 2019; Brauer, Ruhalahti & Hallikainen, 2018). The Soft Skills Training and Recruitment of Adult Educators (SOSTRA) project (Sostra, 2018) designed a new self-paced professional development model for teachers (cf. Ruhalahti & el., 2021), which combined first-time soft skills professional development through a digital badge-driven learning model. The professional development model included intra- and intra-personal and socio-emotional skills (cf. Ruhalahti & et al, 2021).

This paper presents a study that investigated, through mixed methods, the learning experiences of Caribbean teachers who participated in the 'socio-emotional skills' digital badge-driven study module in the spring of 2022. The following sections introduce the concepts of socio-emotional skills and blended and open badge-driven learning, which form the theoretical basis of our study. Thereafter, the context of the research is presented, together with the research questions and methods. Finally, the results are discussed, and suggestions for learning design and future research are presented.

Since little research has focused on the socio-emotional skills in the Caribbean, this study provides new insights into research on the soft skills self-paced training model and emphasizes how training could benefit the teaching and learning culture.

2 THEORETICAL FRAMEWORK

2.1 Socio-emotional skills

The concepts and definitions of socio-emotional skills vary, and it must be noted that the term does not have a consensus definition. Skills are conceptualised differently among different disciplines, educational contexts, countries, and continents. Aspelin (2019) has pointed out that socio-emotional skills and knowledge includes behavioural, cognitive, and emotional components, which are intertwined in pedagogical practice. In this study, we focus generally on teachers' socio-emotional skills.

The development of teachers' socio-emotional skills provides a foundation for the supportive teacher-student relationship that helps effectively manage their classrooms and successfully implement social and emotional learning (Jennings, 2011).According to Hankala's (2013) research, adult educators' socio-emotional skills are closely intertwined with reflectivity, and these skills are important factors for well-being and adaptability. Some define socio-emotional competencies as skills that enable individuals to accomplish tasks, such as recognising and managing their emotions and coping successfully with conflict. For Aspelin (2019), a teacher's socio-emotional competence means being sensitive and responsive, being emotionally present and managing emotions, confirming the student's feelings, and having a positive emotional influence; it involves a teacher's ability and willingness to act sensitively and responsibly in order to support students' emotional development.

Hamre et al. (2013) stated that the key element for social and emotional functioning in the classroom is positive facilitation between teacher-student and student-student; which reflects the overall emotional tone of the classroom and the connection between teachers and students. This is also strongly linked with the self-determination theory (cf. Connell & Wellborn, 1991), in which the teacher provides emotional support and creates a safe environment for children. To build positive facilitation to support socio-emotional skills in the classroom, the most applicable strategy is to integrate activities into daily interactions (Thurlings & Brok, 2017). In addition, Leite, Go and Havu-Nuutinen (2022) found in their primary education teacher study that everyday activities of providing emotional support to students are important, such as showing sensitivity, building a positive climate, and considering students' perspectives.

In a recent study, Griffith, Maynard and Bagner (2020) examined how Barbadian teachers identify and respond to socio-emotional, behavioural, and learning challenges. The results showed that over one-third of teachers lacked formal training for these socio-emotional challenges; requiring further training related to socio-emotional skills and challenges. In this study, socio-emotional skills are seen as a set of skills that helps teachers create supportive relationships with their students, effectively manage their classrooms, and successfully implement social and emotional learning. Important skills include empathy, critical thinking, positive attitude, adaptability, integrity, openness to diversity, and self-awareness.

2.2 Digital open badge-driven learning

Open badges are a rather new approach to education and professional development. They help identify, make transparent, and promote competences in the form of digital micro-credentials (Abramovich, Schunn, & Higashi, 2013; Brauer, Ruhalahti & Hallikainen, 2018). Digital open badges represent a kind of information storage tool that contains a visual image as an icon, the name of the badge, the issuer, the competence description, the assessment criteria, and evidence of the badge earner's competence (Bowen, 2013).

The structure for digital open badge-driven learning for teachers' professional development was originally developed in Finland (Brauer, 2019). In the learning process structure, it is possible to design learning activities for students when utilising open badges for skill demonstration. To be successful, the open badge-driven learning process requires a design for 1) easy access to online materials, 2) badge assessment criteria, 3) instructional badging, and 4) updated development plans. The badge criteria explain the competence by

learning objectives and assessment criteria as well as instructions for skill demonstration. Detailed badge criteria help applicants not only demonstrate their skills and competences but also conduct a self-assessment of their own performance (Brauer & Siklander, 2017).

Designing the digital open badge-driven learning process and creating badge constellation of skills or competences provide tools for teachers' professional development. Competence-based assessment criteria are an important component, as badges enable teachers to identify the individual competences needed in the teaching profession (Brauer & Korhonen, 2022). Open badges are also seen as micro-credentials, which are important in continuous learning as people develop their professional skills and competences throughout their careers.

3 RESEARCH AIMS AND QUESTIONS

The purpose of this study was to identify how Barbadian and Trinbagonian teachers experienced socio-emotional skills learning through the digital badge-driven learning process and to examine how socio-emotional skills training has benefited teaching and learning. The focus is on the teacher's experiences as captured in their responses to an on-line survey. This study has two main research questions:

RQ 1: How do teachers experience socio-emotional learning through digital badge-driven learning?

RQ 2: What were teachers' perceptions on how socio-emotional skill training benefitted teaching and learning?

4 CONTEXT AND PARTICIPANTS

The setting of this research was the study module 'Socio-emotional Skills', 2 ECTS (European Credit Transfer System), which was a part of the Instructional Learning Design for the Distance and Digital Education training programme (15 ECTS) in Barbados and Trinidad and Tobago. The module was part of a nine-month program (September 2021-May 2022) aimed to support teachers during the COVID19 pandemic (2021/2022) where remote and on-line teaching has become dominant, however, few teachers felt well prepared for it. Due to the COVID restrictions and initial closure of schools, the entire continuing education programme was held online and provided by a Finnish teacher education unit. A total of 193 teachers started in-service training in the autumn of 2021, and 88.1 % graduated and received the full credit and certifications.

The objective of the socio-emotional skills module was for teachers to be able to recognise their own strengths and weaknesses related to socio-emotional skills and to expand their awareness to recognise and manage their emotions and cope successfully with conflict. This self-paced study module was based on a digital open badge-driven learning approach. Each participant had to earn at least five out of seven digital badges (i.e., empathy, critical thinking, positive attitude, adaptability, integrity, openness to diversity and self-awareness) to earn the socio-emotional pro meta badge. All skills demonstrations were linked to the teacher's daily professional routines, activities, and behaviours. In total, 170 teachers earned the meta badge.

170 teachers (99 Barbadian and 71 Trinbagonian) completed the study module. The data for this study were drawn from an online questionnaire (n=148). The sample consisted of the following: 9 participants were curriculum officers/school principals (6%), 17 were teachers of students with special needs (11%), 3 were teacher educators (2%), 53 teachers of 4- to 7-year-old students (35%), 49 of 8- to 10-year-old students (33%), and 19 of 11– to 13-year-old students (13%).

5 DATA AND ANALYSIS

The online survey gathered 150 responses, which represented almost the entire (88.2 %) study group. This study consisted of teacher participants (n=148) who answered the survey and gave permission for its use for research purposes.

In this case study, a mixed-method approach, including quantitative analysis of simple frequencies and qualitative inductive content analysis, was used to explore the second research question. The data from the open-space questions were transcribed and analysed using qualitative inductive content analysis (Schreier, 2012) and Atlas.ti 22.2.5 software. The main emphasis in inductive content analysis is the data, which means that the units of analysis are not predefined, and that theory is constructed from the data. Inductive content analysis requires simplifying the data and forming concepts that reliably describe the matter at hand. Data quantification can be used to support content analysis, as it quantifies how many participants express a certain trait (Schreier, 2012). The research team carefully studied the data and determined the analysing coding categories. By analysing codes, in this context, we mean the semantic labels or tags we created to analyse participants' open responses. The data were categorised and analysed according to the developed codes. The unit of analysis was a word, sentence, or short expression. A participant's expression could be categorised to the different codes. include many analysing codes. The coding categories were formed in a data-driven manner.

6 RESULTS

6.1 How did teachers experience socio-emotional learning through digital badge-driven learning?

The quantitative results obtained from the survey applied to the participants are organised into two parts. The first shows the teachers' perceptions of the training received in the development of socio-emotional skills.

In fact, as shown in Table 1, 90% of the participants had favourable opinions regarding the socio-emotional skills selected for training. It is also important to note that a small number of participants (6%) did not feel that the study module focused on skills that were relevant to them.

TABLE 1. **THE TRAINING MODULE FOCUSED ON RELEVANT SOCIO-EMOTIONAL SKILLS (%)**

SCALE	BARBADOS	TRINIDAD AND TOBAGO	TOTAL
Strongly agree	59	60	59
Agree	33	31	32
Neutral	4	1	3
Disagree	0	0	0
Strongly disagree	4	8	6
Total	100	100	100

Table 2 shows that self-paced learning through digital badge driven learning was seen as interesting. In total, 87 percent of participant confirmed that the selected self-paced learning model was seen appropriate in case of teachers' professional development process.

TABLE 2. **THE SELF-PACED LEARNING MODE THROUGH
DIGITAL BADGE-DRIVEN LEARNING MODULE WAS
AS INTERESTING AS POSSIBLE (%)**

SCALE	BARBADOS	TRINIDAD AND TOBAGO	TOTAL
Strongly agree	40	43	41
Agree	46	46	46
Neutral	8	4	6
Disagree	1	1	1
Strongly disagree	5	6	5
Total	100	100	100

Viewing participant's experiences on developing their own socio-emotional skills, results shows that socio-emotional skills development was seen comfortable (Table 3).

TABLE 3. **I FELT COMFORTABLE DEVELOPING
MY SOCIO-EMOTIONAL SKILLS (%)**

SCALE	BARBADOS	TRINIDAD AND TOBAGO	TOTAL
Strongly agree	56	53	55
Agree	35	38	36
Neutral	4	4	4
Disagree	0	0	0
Strongly disagree	5	6	5
Total	100	100	100

Finally, Table 4 confirms the importance of a participant's socio-emotional skills development as a part of the training programme. 92 percent of the teacher participants experienced socio-emotional skills development as important for their work as a teacher. As in the previous cases, there is no significant difference between Barbadian and Trinbagonian teachers.

TABLE 4. **ENHANCING SOCIO-EMOTIONAL SKILLS WAS IMPORTANT FOR MY WORK AS A TEACHER (%)**

SCALE	BARBADOS	TRINIDAD AND TOBAGO	TOTAL
Strongly agree	65	68	67
Agree	27	22	24
Neutral	3	4	3
Disagree	1	0	1
Strongly disagree	4	6	5
Total	100	100	100

In summary, the teachers participating in the programme understood the importance of socio-emotional aspects in teaching and learning processes. They agreed that self-learning and the use of digital badges are interesting strategies that contribute to the development of socio-emotional skills. Finally, the teachers recognised the importance of developing their own socio-emotional skills to carry out their work.

6.2 What were teachers' perceptions on how socio-emotional skill training benefitted teaching and learning?

The aim of the second research question was to find out about the participants' experiences and perceptions of the socio-emotional skill training relevance. When the responses were analysed, the aim was to understand the point of view of the participants. Table 5 describes the frequencies and samples of the codes, indicating the benefits of socio-emotional skill training for teaching and learning.

TABLE 5. **PARTICIPANTS' PERCEPTIONS ON HOW SOCIO-EMOTIONAL SKILL TRAINING HAS BENEFITED TEACHING AND LEARNING (F=329)**

CODE	EXAMPLES FROM THE DATA	FREQUENCY (F)
Better teacher-student interaction	'Knowing this will enhance the interaction among students as they engage in the classroom with their peers and teacher'. 'It can help me to improve, especially in the delivery of instruction to the students, and can help me to understand them and assist them in any possible way I can'. 'Enhance my teaching experience with my students when I interact with them, understand them better and be able to cater my lessons to motivate students more'.	111
Deeper integration into the teaching and learning	'This allows me to cater and tailor my lessons and social and emotional lessons in a more detailed manner'. 'use this during morning greetings, physical education activities, read aloud, discussions, and through games'. '…skills learnt can assist me in my lesson planning by changing strategies and finding the best strategies to assist them in learning concepts'.	69
Supporting students' self-awareness skills	'Bringing notions like self-awareness and other important mental health issues to the fore ensures that our students develop holistically recognising that their emotional/ spiritual growth is as important as their cognitive development'. 'It helps them to develop a positive self-image, which aids with their self-esteem'. 'It will help them to develop reflective attitudes that will help them with their behaviour'.	45
Improving the learning community	'Students would be motivated to be willing to show empathy to each other and to understand the need to become emotionally intelligent'. 'They're crucial to the holistic development of both teacher and student. They open a new level of communication and understanding'. '…teach these skills to all students and encourage them to be supportive of one another'.	38
Supporting learning for life	'It will help develop their caring and empathy skills and produce great and appropriate thinking citizens within our school and homes and hopefully in the future great national citizens'. 'Students will become overall better persons and future employees or employers as they put skills like integrity into practice'.	30
Scaffolding student's development	'I believe some of these skills will allow students to experience how they can make themselves a better person by being aware of the information'. 'Help to develop the child holistically'.	15
Building resilience	'…so they can be great peer mentors to their friends who may need a friendly face in difficult times'. '…in teaching them how to adapt to changes in the various environments they will be a part of, especially the school environment'.	12
Building student's motivation	'…to motivate my students to link their previous knowledge to the present condition/ classroom learning skills'. 'Students need motivation and teachers need to find various ways to help mould the thoughts of students'.	6
Enhancing learning skills	'Enhancing those skills can improve their ability to learn and grow in the classroom'. '…to aid my students in all areas of their development (academic and social)'.	3

The socio-emotional skill training results showed that teachers considered **better teacher-student interaction** (f= 111) most relevant for improving their interaction with students.

The improved interaction was seen to foster better learning community creation, communication, holistic teaching practices in the classroom and seeing students more as individuals. Such a sentiment is described in the following quote: *'These skills can and should be used daily in our interactions'*. The socio-emotional skills were valued as an opportunity to **integrate into teaching and learning** (f=69). As one participant reported, *'I can use social-emotional skills training with my students by inserting them into my lesson plans'*.

It was noteworthy that participants outlined **self-awareness** (f=45) as an important skill to support their students' learning. It was seen as influencing students´ development and growth. A high number of participants expressed experiencing an improvement in their **learning community** (f=38). Socio-emotional classroom awareness can create a culture where attitude, behaviours, actions and learning foster a better learning and school community. **Supporting for life** (f=30) was seen as an essential skill, which should be more improved. **Scaffolding students' development** (f=15) was considered as ensuring their growth as human beings in society.

The data also revealed a few code units, and even though they were not among the most frequent ones, that still might be interesting to discuss. Socio-emotional skills were viewed as a **resilience builder** (f=12), as one participant reported, *'The skills teach us how to cope and function better in our given environment'*. In addition, **building students´ motivation** (f=6) and **enhancing learning skills** were mentioned. Furthermore, one participant concluded, *'I was losing some of my passion for the profession, and this training and the self-reflective essays reminded me of my main reasons for entering the teaching profession'*.

ETHICAL CONSIDERATIONS

The nature of the present study required participants to provide information voluntarily and openly. Participants were assured of their privacy and confidentiality—some teachers used pseudonyms—regarding the nature of the information being sought and the subsequent use of it.

DISCUSSION

This study focused on Barbadian and Trinbagonian teachers. Using survey data, it explored how these teachers experienced socio-emotional skill learning through the digital badge-driven learning process and how socio-emotional skills training has benefitted their teaching and learning. The experiences of the participants did not vary a lot, and there were significant factors contributing to successful socio-emotional skill development in the two Caribbean countries. It must be noted that during the study module schools were re-opened, but there were still COVID-19 pandemic restrictions in effect, resulting in a hybrid learning setting with students coming to schools certain days of the week and studying from home for the other days. The results confirmed the findings of previous studies (Brauer, 2019; Brauer, Mäenpää, Kilja & Juntunen, 2022) that a competence-based digital badge-driven learning process provides a potential professional online development model for teachers.

In this context, the students' socio-emotional well-being has again become a topic of interest in education systems and schools and is seen as part of the holistic development of students (Murphy-Graham & Cohen, 2022). To achieve this holistic development, the teachers' own attention to socio-emotional well-being and the training they need to work on their socio-emotional skills are both fundamental (OREALC-UNESCO, 2021).

The study results also strengthen the findings of previous studies on socio-emotional skill development. Aspelin's (2019) study, for example, highlighted the importance of socio-emotional skills for teachers. This study's findings also confirm Leite et al.'s (2022) research, which demonstrated the importance of showing sensitivity, building a positive climate and taking students' perspectives into account. The findings corroborate Hankala´s (2013) study, which showed that teachers' socio-emotional skills are closely intertwined with intrapersonal skills, and these skills are important factors for well-being, coping and adaptability. Like in this study, the two-way interaction is valued highly (cf. Hamre et al., 2013). Results showed that the development of students' social-emotional skills in the classroom requires teachers' recognition of the importance of working on their own social-emotional skills. This enables them to do a better job, in general, but also in developing these skills in their students.

When reviewing results in the Latin and Caribbean context, a comparable study undertaken in Brazil by Ruhalahti et al. (2021) also demonstrated that teachers in Brazil valued

socio-emotional skills as highly as their counterparts in Trinidad and Tobago and Barbados as shown in this study. Also, this study's results confirm the OREALC-UNESCO (2021) studies, which showed that socio-emotional awareness plays an important role in the classroom. Moreover, the importance of socio-emotional skills training was reconfirmed. As concluded by Griffith et al. (2020), this study also suggests that providing teachers with opportunities to sharpen their socio-emotional skills in professional development will be key to ensure that students acquire these skills. In addition, to supporting socio-emotional skills in the classroom, the most applicable strategy is to integrate activities into daily classroom interactions (cf. Thurlings & Brok, 2017).

In conclusion, when developing future teachers' professional development programmes, the results suggests that all development begins with the teacher's own self-awareness towards socio-emotional skills. The developers of similar trainings could think about whether the training could start by strengthening the teachers' socio-emotional skills. That way, there would be enough time to promote and reflect on their skills during the entire training process. Globally, teacher education faces challenges as it attempts to bridge education and the needs of the future workforce. The ascendancy of digital technology demands new kinds of skills, which need to be integrated into the curricula, and teachers must be provided more opportunities to develop professionally (De Lisle, Seecharan & Ayodike, 2010; Ruhalahti, 2019).

As Renna Gallano (2022) mentioned in the Latin American context, in order to improve socio-emotional learning among students, progress must be made towards building environments conducive to learning, strengthening positive life trajectories and improving indicators of well-being and comprehensive development.

ACKNOWLEDGEMENTS

REFERENCES

Abramovich, S., Schunn, C. & Higashi, R. M. (2013). Are badges useful in education? It depends upon the type of badge and expertise of learner. *Educational Technology Research and Development,* 61(2), 217–232. https://doi.org/10.100711423-013-9289-2

Arias Ortiz, E., Hincapié, D. & Paredes, D. (2020). *Learning for the life: The Development of socio-emotional skills and the role of teachers.* Inter-American Development Bank. http://dx.doi.org/10.18235/0002492

Aspelin, J. (2019). Enhancing pre-service teachers' socio-emotional competence. *International Journal of Emotional Education, 11*(1), 153–168.

Brauer, S. (2019). *Digital Open Badge-driven Learning –Competence-based Professional Development for Vocational Teachers.* Acta Universitatis Lapponiensis 380. Rovaniemi : Lapin yliopistopaino. https://lauda.ulapland.fi/handle/10024/63609

Brauer, S. & Korhonen, A. (2022). 360-Degree View of Digital Open Badge-Driven Learning. In D. Piedra (Ed.), *Innovations in the Design and Application of Alternative Digital Credentials* (pp. 95-130). IGI Global. https://doi.org/10.4018/978-1-7998-7697-7.ch005

Brauer, S., Mäenpää, K., Kilja, P. & Juntunen, E. (2022). Recommendations for future trainings. In S. Brauer & K. Mäenpää (Eds.), *VET Teachers' Digital Pedagogical Competences in Latvia, Lithuania, and Portugal. Needs Analysis, Review Report and Recommendations for Continuous Education and Training.* Oamk Journal. http://urn.fi/urn:isbn:978-951-597-228-6

Brauer, S., Ruhalahti, S. & Hallikainen, V. (2018). Digital professional learning triggers: In an online badge-driven process. *Education in the North,* 25(1–2), 64–86. https://doi.org/10.26203/2QHH-5K39

Brauer, S. & Siklander, P. (2017). Competence-based assessment and digital badging as guidance in vocational teacher education. In H. Partridge, K. Davis, & J. Tomas (Eds.), *Me, Us, IT! Proceedings ASCILITE2017: 34th International Conference on Innovation, Practice and Research in the Use of Educational Technologies in Tertiary Education.* 191–196.

Bowen, K. (2013). Open badge anatomy (Updated). https://classhack.com/post/45364649211/open-badge-anatomy-updated

Connell, J. P. & Wellborn, J. G. (1991). Competence, autonomy, and relatedness: A motivational analysis of self-system processes. In M. R. Gunnar & L. A. Sroufe (Eds.), *Self process and development: The Minnesota symposia on child development,* 23, 43–77. Hillsdale, NJ: Erlbaum.

De Lisle, J., Seecharan, H., & Ayodike, A. T. (2010). Is the Trinidad and Tobago education system structured to facilitate optimum human capital development? New findings on the relationship between education structures and outcomes from National and International Assessments. [paper presentation] *The 11th Annual SALISES conference, Turmoil and turbulence in small developing states: Going beyond survival,* Port of Spain, Trinidad & Tobago.

Griffith, S.F, Maynard, D-M. B. & Bagner, D.M. (2022). Barbadian teachers' identification of social-emotional, behavioral, and learning challenges in young children. *International Journal of School & Educational Psychology, 10*(1), 29–45. https://doi.org/10.1080/21683 603.2020.1802377

Hamre B. K., Pianta R. C., Downer J. T., DeCoster J., Mashburn A. J. & Hamagami A. (2013). Teaching through interactions: Testing a developmental framework of teacher effectiveness in over 4,000 classrooms. *The Elementary School Journal,* 113, 461–487.

Hankala, U. (2013). *Sosioemotionaalisten taitojen merkitys aikuiskouluttajan työssä.* [Importance of adult educators' socio-emotional skills] (Master thesis), Lifelong Learning and Education, University of Tampere, Finland.

Jennings, P. (2011). Promoting teachers' social and emotional competencies to support performance and reduce burnout. In A. Cohan and A. Honigsfeld (Eds.) *Breaking the mold of preservice and inservice teacher education: Innovative and successful practices for the 21st century* Lanham, MD: Rowman & Littlefield Education, 133–143.

Leite, L. O., Go, W. & Havu-Nuutinen, S. (2022). Exploring the Learning Process of Experienced Teachers Focused on Building Positive Interactions with Pupils, *Scandinavian Journal of Educational Research, 66*(1), 28–42. https://doi.org/10.1080/00313831.2020.1833237

Murphy-Graham, E., & Cohen, A. K. (2022). Life Skills Education for Youth in Developing Countries: What Are They and Why Do They Matter? In J. DeJaeghere & E. Murphy-Graham (Eds.), *Life Skills Education for Youth. Critical Perspectives* (pp. 13–42). Springer.

OREALC-UNESCO (2021). *Habilidades socioemocionales en América Latina y el Caribe.* Oficina Regional de Educación de la UNESCO para América Latina y el Caribe.

Parsons, S. A. & Vaughn, M. (2016) Toward Adaptability: Where to from Here?, *Theory Into Practice, 55*(3), 267–274. https://doi.org/10.1080/00405841.2016.1173998

Renna Gallano, H. (2022). *Transformar-nos: marco para la transformación educativa basado en el aprendizaje socioemocional en América Latina y el Caribe.* Oficina Regional de Educación de la UNESCO para América Latina y el Caribe.

Ruhalahti, S. (2019). Redesigning a Pedagogical Model for Scaffolding Dialogical, Digital and Deep Learning in Vocational Teacher Education. *Acta electronica Universitatis Lapponiensis,* 257. http://urn.fi/URN:ISBN:978-952-337-145-3.

Ruhalahti, S., Frangou, S-M., Sanfelice, D., Ho Thi Han, T. & Vasari, P. (2021). A Comparative Study of Brazil, Finland and Vietnam: Soft Skills for Adult Educators. E*uropean Journal of Education Studies, 8*(4),133 –158. https://oapub.org/edu/index.php/ejes/article/view/3694

Ruhalahti, S. & Korhonen, A-M. (2021). Pehmeät taidot ammatillisen opettajan osaamisalueena[Soft skills as a vocational teacher´s competence area]. *HAMK Unlimited Professional.* https://unlimited.hamk.fi/ammatillinen-osaaminen-ja-opetus/pehmeat-taidot-ammatillisen-opettajan-osaamisalueena

Schreier, M. 2012. *Qualitative content analysis in practice.* London: SAGE Publications Ltd.

Sostra.eu. (2018). *Soft Skills Training and Recruitment of Adult Educators.* Sostra EU. https://sostra.eu/

Thurlings, M., & Brok, P. d. (2017). Learning outcomes of teacher professional development activities: A meta-study. *Educational Review, 69*(5), 554–576. https://doi.org/10.1080/00131911.2017.1281226