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The Role of Micro-credentials in Addressing Educational Issues in the English-speaking Caribbean

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ABSTRACT

This paper investigates the role of micro-credentials (MCs) in addressing educational challenges in the English-speaking Caribbean, with a focus on their potential to align with regional education policies and strategic development goals (SDGs), particularly SDG4: Education for All. Drawing on policy documents, strategic plans, and other resources from seven Caribbean countries, the study examines how a unified MC framework could address critical educational issues such as quality assurance, cost, access, equity, and workforce alignment. While MCs offer numerous benefits such as personalized learning pathways, workforce reskilling, and increased accessibility, they also present significant challenges, including the need for standardization, stakeholder buy-in, and sustainable integration into existing education systems. The findings underscore the importance of collaboration among governments, educational institutions, and industry stakeholders to harness the transformative potential of MCs for regional development. This paper serves as a resource for policymakers and educators exploring innovative approaches to democratize education and foster lifelong learning.

Keywords: *Micro-credentials; flexible and blended learning; distance education; developing countries; digital divide; sustainability*

INTRODUCTION

The Caribbean Examinations Council (CXC®), the Commonwealth of Learning (COL), UNESCO, and other organizations have recognized micro-credentials (MCs) as crucial tools for achieving Strategic Development Goals (SDGs), particularly SDG4: Education for All. This investigation consisted of an examination of documents available from different education. ministries and other organizations in seven Caribbean countries. This included an examination of educational objectives, goals policies, strategic plans, and other relevant documents from participating countries accompanied by an analysis of how these could be addressed by focusing on the development of a common MCs system for the region. The paper explores the potential of MCs to address both local and regional educational policy concerns.

Drawing from definitions provided by the OECD (2021) and CXC® (n.d.), a MC is generally defined as an attestation of an educational intervention lasting one semester or less, typically under 45 hours, with some consisting of one or a few lessons of short duration. MCs are typically used to assess specific competencies or outcomes, providing successful learners with official accreditation.

PROCESSES AND METHODS

The methodology employed in the process investigating the potential impact of MCs and the views of stakeholders, consisted of a document examination reviewing twelve government strategic plans and other documents produced by Caribbean governments in seven countries. These included the larger countries in the region, namely Barbados, Guyana, Jamaica, and Trinidad and Tobago. Three other countries were also included in the investigation: Belize, Grenada, St. Kitts and Nevis. From this examination, a list was created of about 20 educational issues raised by the various countries in their strategic plans and other documents and checking which issues were considered important by each country.

Google and Bing searches were conducted using the following key words “micro-credential” and “short course” and” Caribbean”. No micro-credential policies or other documents were discovered pertaining to the Caribbean region. A search for relevant articles and reports was then conducted using ChatGPT Google, Google Scholar and possibly relevant papers on MCs were examined. Following this, CXC® provided several documents, related to different government concerns and goals for education in their respective jurisdictions. These were indirectly related to, or helpful in understanding the possible links for MCs in addressing issues highlighted in the documents. Along with other documents discovered online, these resources were very helpful in providing direction and focusing the investigation. All documents consulted appear in the Documents Consulted section at the end of this paper.

BENEFITS AND CHALLENGES OF MICRO-CREDENTIALS

A comprehensive examination of country education plans revealed no explicit policies related to micro-credentials (MCs). Only two references to MCs were found: one from The University of the West Indies, St. Augustine Campus in Trinidad and Tobago, and another from the Commonwealth Caribbean University in Jamaica. Consequently, the investigation shifted focus to explore how MCs based on short courses, workshops, and similar interventions could address the stated goals of different countries as outlined in their strategic plans and official documents.

Quality and cost emerged as universal concerns across all countries. Other issues were identified by several countries, as well as by CXC® and UNESCO. Some concerns were mentioned by only one or two countries but could reasonably be considered relevant to all.

While it has been argued that MCs can be used to constructively address many issues raised by the different strategic plans and other documents released by the several governments, there are also significant challenges. The primary obstacles to MC acceptance would be the creation of awareness, establishing credibility and gaining acceptance among stakeholders. This process should lead to active support, or at a minimum reduced opposition. Awareness-raising efforts must target not only institutional, organizational, and governmental decision-makers but also private sector leaders, students, faculty, staff, and potential learners in the wider public. This can be particularly challenging with limited or no budget.

Despite these challenges, MCs can be an effective means of achieving many goals outlined in strategic plans and other documents, including:

1. Supporting more personalized learning
2. Guiding the transition between secondary and tertiary education levels
3. Identifying at-risk learners for early intervention
4. Allowing for greater curriculum development flexibility

5. Increasing accessibility to professional development opportunities
6. Rapidly re-skilling the workforce, addressing the requirements of emergent industries

The issues raised in the documents examined are listed below, along with a rationale for how MCs can be helpful in addressing these concerns, followed by the implementation challenges. While quality and cost were universal concerns, other issues varied in prominence across countries. It's important to note that the absence of an issue in a particular country's documentation does not necessarily mean it is not relevant locally or regionally

QUALITY ASSURANCE

Benefits

Quality assurance in education depends on institutions monitoring, maintaining, and improving the relevance of the course content, as well as identifying efficiencies and deficits in the system. The educational system includes course delivery, administration, technology, evaluation, and assessments as well as a commitment to equity for all learners. MCs can prove to be a catalyst in improving not only the quality of the course content, but also by simplifying administrative tasks, student assessment and the application of appropriate technologies.

Challenges

Maintaining the quality and rigour of MCs in ever-changing technology-based environments can be difficult to sustain when industry requirements are constantly changing, and new businesses are emerging. Instructors need to be trained and retrained on a continual basis. New principles and techniques need to be regularised, creating a stable environment where faculty and staff can work to deadlines. There are also many obstacles in integrating MCs into existing quality frameworks and accreditation processes.

Cost of Education

Benefits

MCs are linked to shorter and more focused courses than traditional ones. Since learners only pay for the MC that they need, they do not have to pay for a full rack of courses leading to a diploma or degree. Institutions can benefit from reduced costs for teaching personnel with shorter courses and reduced overhead, especially if the course is delivered online.

Challenges

The cost of tuition for students is another major challenge. While some very short courses are inexpensive, the tuition for others is beyond learners' capacity to pay. The approximate mean price of courses, as revealed by many institutions is equivalent to that of US$369, with a median of US$192. For institutions, stacking credits made up of MCs, whether from credit or non-credit courses could result in higher administration and assessment costs.

Access and Equity

Benefits

MCs can help promote educational equity by providing anyone with learning opportunities, especially people who would not otherwise seek them. Anyone can succeed, regardless of their

background. MCs can offer different entry points and pathways to learning and help level the playing field, ensuring more equitable access to education. MCs can be delivered as digital courses made available online, rendering them accessible to all, including those in remote or underserved areas, to the disabled, or others who are housebound, with few geographical, financial, or other constraints. This increased accessibility enables learners to upskill, anywhere at any time. Online and hybrid MCs can enable students to continue their education outside traditional classroom settings. Many learners do not want to commit to a full degree program of several years because of cost or time commitments. MCs provide these learners with the steppingstones towards a full degree while providing them with knowledge and skills as they work.

Challenges

The lack of access to physical classrooms for face-to-face lessons or to reliable internet connexions or even to computers or tablets for online learning is a reality for many citizens. The lack of study space in the home is also an important consideration. These challenges can put to sleep any hope for learners wishing to access MCs. MCs can be effective in training learners for the workforce, but first access to the learning space or relevant technologies must be ensured.

Agility and Speed

Benefits

Because they are based on short courses, MCs can support programmes that can be quickly developed or adapted to the changing needs of industry, providing learners with the skills needed for employment in a timely fashion. Digital MCs can be immediately made available online to learners wherever they are and at whatever time they desire. Their learners can be fast-tracked towards employment; or employees' skills can be promptly updated, thus placing the region in a possible competitive advantage in attracting innovative industries.

Challenges

Rapid development of MCs can lead to quality and sustainability challenges. Time must be sufficient for ensuring good course design, testing and learner assessment processes. Traditional skills may be sacrificed to market trends leading to a decline in longer term, transferable competencies. Moving too fast can also lead to strains on the resources available.

Collaboration

Benefits

Partnerships with industry and the community can be strengthened through collaborations in developing MCs. These partnerships can ensure that the MC competencies align with industry standards and are responsive to community need, while preparing learners for real-life applications of their learning. Such collaboration with industry is essential when implementing MCs for the employment, to ensure that the MCs match the priorities of the workplace and provide learners with the practical skills and knowledge required by employers.

Challenges

Sustaining long-term partnerships, although an admirable goal, can nevertheless prove challenging. The continuing alignment of educational institutions with industrial partners will need to be monitored and maintained over time to ensure that synergies endure, and consensus

continues. Conflicts of interest and implementation challenges must be kept to a minimum without draining the resources of the participants.

Curriculum Reform

Benefits

MCs can be used to integrate up-to-date skills, directly into the curriculum without modifying other courses in the programme. The MCs can address skill gaps or the ever-changing needs of both education and the workforce. A relevant curriculum divided into short manageable units with MCs can be very effective in increasing both teacher interest and student engagement. MCs can be developed for a specific purpose (e.g. First Aid, Excel or SAP training) or for a specific group (e.g. nurses, the disabled, soldiers), or to address high priority gaps identified by governments or business.

Challenges

Overhauling traditional curricula to include MCs requires significant effort and buy-in from stakeholders. Efforts must be focused on ensuring alignment with standards and regulations, while addressing the quality requirements. Overworked faculty and staff may not be agreeable because of increased workload demands. Faculty will not be capable of producing a MCs without the assistance of instructional designers and technologists.

Flexibility

Benefits

A major strength of MCs is the flexibility that they can provide for both learners and instructors in their schedules and in addressing their needs. This modular approach allows for diverse learning paths, with major and minor options. Learners do not have to spend as much time or money, enabling them to gain marketable skills quickly and affordably. With MCs, learners who experience disruption can quickly return to learning, allowing them flexibility in their learning paths.

Different learning modalities (face-to-face, online or hybrid learning) are also possible empowering students to meet the standards of a wide range of certifications. When combined with Open Educational Resource (OER), the MCs can be adopted, adapted and assembled in a wide variety of ways to meet the specific goals of a course or programme

Challenges

Flexibility needs to be balanced with structure. When there is too much flexibility both faculty and learners can flounder due to the copiousness of decisions to be made. The more flexibility, the more self-management skills are needed. Students with poor self-management skills often drop out. They need structure. More flexibility may lead to increased workloads for faculty and staff. Overwork can lead to the loss of control, followed by procrastination and failure.

Labour Market analysis

Benefits

MCs can help align education with industry and market demands to match workers with employer needs. Labour market data can be analysed in collaboration with industry professionals to ensure that MCs developed are aligned with labour market needs in a timely fashion. Emerging fields,

especially, need trained workers – MCs save employers time and costs, while enabling them to move quickly into new markets.

Challenges

Rapidly changing job markets make it hard to keep programmes up to date. One could argue that, rather than focusing on specific job skills, students need to learn to be adaptable and open to change. While this may be true, so is the opposite -- workers need specific knowledge and skills in order to be adaptable in any given environment. Wheelahan & Moodie (2021) warn that MCs tend to focus on a specific skill for employment and could atomize education and subvert it to the labour market.

Lifelong learning

Benefits

Modular MCs support lifelong learning by making available short courses that can be completed by learners while working. The fear of failure is common. Small packages of learning, exemplified by MCs allow learners to get a taste of learning without a major investment of money or time. Early success in MCs can 'open doors', motivating learners to continue their learning path to more credentials. These MCs can be related to needed work skills, career goals or personal interests. The world is changing quickly, and MCs can provide learners with the opportunities they need to maintain relevance and improve their career prospects.

Challenges

Lifelong learning is an admirable goal, but there are major challenges to overcome, although MCs can be effective in addressing these problems by providing new paths to assessment and accreditation, they are not a panacea. These problems for learners include cost of tuition, illiteracy, lack of training resources, lack of internet etc., not to mention family constraints, especially for women. Poverty and the lack of self-confidence this produces are also mitigating factors.

Organizational Effectiveness

Benefits

Targeted training enabled by MCs can upgrade the performance of employees in achieving institutional goals. Internal processes in need of improvement can be targeted and MCs developed and delivered to encourage employees to focus on identified needs. In emergency situations, such as the recent COVID-19 pandemic, organizations can speedily develop MCs upskilling workers quickly to meet specific needs.

Challenges

Aligning MCs with organizational effectiveness requires a clear vision and a strategic plan. Weak leadership, limited budgets, the need to maintain employee motivation, morale, and capabilities over time, can all put a hold on the most ambitious plans for improvement within any institution. MCs could also threaten the traditional degree model that is the cornerstone of existing schools, universities and colleges.

Personalized Learning

Benefits

Because they are modular, MCs can be used to focus on highly specialized areas of study. Being short and limited in scope, MCs can provide learners with customised learning paths that motivate them to achieve the competencies required to meet their goals., at their own pace according to their learning styles or unique interests. Traditional degrees cannot meet these requirements in such a timely fashion.

Challenges

Creating MCs that include scalable, personalised learning experiences can be resource-intensive and so requires strong support from the institutional leadership, and highly motivated faculty. Creating self-paced personalised learning modules is also labour intensive and takes time, especially when an institution is transitioning from traditional teacher-led instructional formats.

PLAR (Prior Learning Assessment and Recognition*)*

Benefits

MCs can form part of a portfolio, which is used to provide a structured framework for assessing and recognizing skills gained informally or through practical experience. Thus, learners MCs can validate their competencies and accomplishments to employers or institutions, and so can be used to expedite the progress of learners towards higher credentials. PLAR could prove to be the main catalyst for the acceptance of MCs and student mobility within the region. An experienced PLAR Unit already exists at The University of the West Indies Global Campus, and so this process could be centralised for the region in this one Unit. Experienced personnel in assessing the validity and integrity of documentation with an understanding of PLAR processes are essential.

Challenges

Training in PLAR and raising awareness of the benefits will be a major challenge. The political will among the different institutions to accept PLAR credits is another obstacle to overcome. Policy on PLAR that demands quality in the assessment practices is of paramount importance.

Professional Development

Benefits

MCs can provide laddered pathways (credential stacking) for teachers and other professionals to continually improve their competencies while achieving further certifications recognizing their enhanced knowledge and skills. Professionals in different fields can use MCs to upgrade their technology skills, embrace the latest developments and keep up with changes in regulations. MCs can be used not only for vocational skills training, but also for highly complex graduate education.

Challenges

Ensuring that MCs are accepted, valued, and accredited by professional bodies, institutions and employers in the region is an important objective that could take time. To achieve this, effective monitoring, and assessment not only of the MCs, but also of their impact on the profession, the institution and the workplace must be implemented.

Regional Accreditation

Benefits

MCs can be used to create a cohesive, organized and unified approach to learning by evaluating specific competencies and outcomes in alignment with institutional goals. Learning gaps can be bridged by using a standard format. MCs can provide the impetus needed for institutions to approve policies and agree on common guidelines and standards for effecting credit transfer and student mobility among local institutions and throughout the Caribbean region.

Challenges

To ensure the acceptability of MCs and other non-traditional learning paths (e.g. PLAR), establishing Caribbean-wide assessment standards and accreditation is important for learners and particularly for employment mobility within the region. Support from institutions, professional bodies and employers is essential.

Student Retention

Benefits

The inability of institutions to retain students through attrition within or at the end of a diploma or degree programme is well recognized. MCs, when engaging and relevant, can prove to be an effective means of supporting student retention and reducing attrition. When students cannot see the “end of the road”, for example the years needed to earn a credential, they can become discouraged. Short courses with attainable MCs can be used to engage students in small steps that can be laddered eventually into a diploma or degree. MCs can be used to address learning gaps, which can be identified more quickly, allowing for the possibility of timely interventions with students at risk of dropping out. Students who fail in one short module, can be quickly directed to targeted MCs that address the gap. Moreover, successful students can be given access to upper-level modules that are more challenging and can maintain their interest.

Challenges

Student retention can be supported with MCs, designed to address the diverse needs and motivations of learners. However, this can be cumbersome, but it can help to prevent dropouts. Keeping not just MC curriculum up to date, as well as training equipment, and practices up to date with industry standards helps ensure that learners can be confident in the value of the knowledge and skills acquired and the credentials conferred. Training must be aligned with actual workforce gaps and industry needs for attrition to be reduced. Learners need confidence that they are learning real world skills, to increase their motivation. In addition, data on students must be integrated and of high quality so that students-at-risk can be judiciously identified for early intervention by instructors and other professionals.

Systemic Alignment

Benefits

MCs can be used to align existing educational priorities with current industry needs and future job markets. They can enable and empower those seeking employment, by providing them with the job skills that are most in demand. With MCs, institution can increase their collaborations with industry and thus support the sustainability of both their institutions and the economy of the country.

Challenges

Ensuring that MCs can support system alignments can require comprehensive collaboration between education providers, government, and industry. Communicating common strategies is difficult within institutions and even within the higher education sector, not to mention other levels of education. This can become much more problematic when including partners in government and the private sector. Monitoring progress over time is also challenging.

Transitional Guidance

Benefits

MCs can serve as a bridge from secondary to tertiary education. Because they certify achievable learning outcomes or competencies, earned in a short period of time, this can also aid in increasing the confidence of students during the transition process. Upper-level MCs can be accessed by students while still in lower school. This allows students to better adapt, knowing that they are capable of making the transition. MCs also offer an alternative to traditional entrance examinations. MCs can be used to recognize a wide range of competencies, supporting a more holistic assessment process. Learners who have expertise but who lack specific skills relevant to their work or career path can fulfill their need for upgrading, either academically or vocationally. MCs also offer more flexibility for students who need to balance their studies with other responsibilities. MCs can also provide students with opportunities to explore different career paths before committing to a field that could prove unsuitable in the long term.

Challenges

The standardization of MCs must be achieved for quality assurance and recognition by the different colleges and universities. Variability in quality can negatively affect the transferability and market recognition of a MC. Financial aid must be made available for learners otherwise they are inaccessible to many learners, especially those that need the MCs the most. There is also a significant risk that MCs will lead to the fragmentation of learning - education that is not comprehensive.

Technical and Vocational Education and Training (TVET) and Caribbean Vocational Qualification (CVQ)

Benefits

MCs are particularly appropriate for short training courses instructing learners in skills that can be verified and then applied to TVET certificates and diplomas. MCs can be used to assess competencies achieved through in-time training. They are especially useful for addressing urgent skill needs that must be rapidly addressed. They can empower workers and industries and used as steppingstones to higher CVQs. The flexibility of MCs can be an essential asset in integrating short courses with MCs for students in secondary schools orienting towards vocational education. Other STEAM subjects could also benefit with MCs.

Challenges

In TVET training, keeping training equipment and practices up to date with industry standards is a major challenge. This is a direct result of reduced public funding and the lack of support from private industry, combined with wasted energy consumption aggravated by the use of outdated machinery, and the increasing ongoing costs of digital transformation.

Workplace

Benefits

MCs can be assembled, adapted, or developed to address the emerging requirements of the job market for practical skills. Just-in-time learning is enabled by MCs. The economy of Caribbean nations is presently based on growing sectors such as tourism, financial services, and information technology. Moreover, implementing MCs can be one step forward in creating systemic efficiencies linking training more seamlessly with the needs of industry. By focusing on real gaps in the workplace, MCs can ensure that resources can be effectively applied where needed, training workers for jobs that are being advertised.

Challenges

For workforce training, the primary challenge for MC implementors is continually monitoring and communicating with the private sector, ensuring that training remains aligned with real world workforce gaps and needs.

Limited scope of current programme offerings

Benefits

MC implementations could play a significant role with the creation of simple pathways to increase programme offerings more quickly and efficiently, especially in niche areas. MCs are linked to courses created using cost-effective agile modular approaches to course development. MCs can be rapidly targeted for specific skills that are in demand and kept up to date, while creating robust pathways to higher diplomas and degrees.

Challenges

The proliferation of MCs could lead to the perception that the credentials are of poor quality, especially if there is no standardisation for assessment. This could result in lack of recognition by institutions and employers. It may be difficult for institutions to integrate and credit MCs in existing programmes and ensure their stackability.

Valid and Reliable Assessment

Benefits

MCs can drive innovation in assessment, including project-based assessments, simulations and problem-solving approaches, which measure real world competencies. This can lead to higher completion rates as competencies can be tested when reached rather than after a specific number of hours. Collaborations with private businesses can ensure that assessment practice are in line with the actual needs of industries.

Challenges

Traditional assessment measures are often not valid when assessing specific or emerging skills. Reliability is also a concern when trying to maintain consistency among the students being assessed. Subjective criteria could negatively affect the reliability. So, standardized assessments are critical to ensure fairness and equity. Assessment can be expensive for institutions, so they need to be economical and scalable without compromising consistency.

SUMMARY OF BENEFITS AND CHALLENGES

Micro-credentials (MCs) offer a promising solution to many educational challenges faced by Caribbean nations, serving as a catalyst for comprehensive educational reform. They introduce a more cost-effective, adaptive, responsive, and inclusive approach to learning, enhancing educational opportunities for learners while simultaneously addressing the evolving needs of the workforce. By providing targeted, relevant training for both employed and unemployed professionals and trades people, MCs play a crucial role in mitigating systemic issues and aligning educational outcomes with market and societal demands.

However, the adoption and implementation of MCs are not without challenges. Despite their potential to provide flexible, targeted learning opportunities that align with contemporary job market demands and lifelong learning goals, significant barriers must be overcome. These obstacles include raising awareness, establishing credibility, ensuring equitable access, managing costs, and adapting existing systems and pedagogies to accommodate this new approach.

These challenges underscore the need for an inclusive, collaborative approach to implementing MCs. Such an approach should prioritize the development of real-world competencies while supporting equity and accessibility. Moreover, it should focus on the systemic alignment of educational standards, quality assurance measures, and industry needs. By addressing these challenges head-on, educators, policymakers, and industry leaders can harness the full potential of MCs to create and sustain a robust regional educational ecosystem that fosters a more adaptable, skilled, and resilient workforce.

Expanding program offerings through MCs allows for quick adaptation to niche skills, but standardization is vital to maintain perceived quality. While MC-driven assessment practices can effectively measure real-world competencies, ensuring consistency, fairness, and cost-effectiveness remains a significant challenge.

FMCs can catalyse a transformative approach to education and workforce development, offering flexibility, targeted learning, and alignment with industry needs. However, their successful implementation requires careful management of quality, access, costs, and collaboration. By striking the right balance between these factors, Caribbean nations can leverage MCs to revolutionize their educational landscapes and better equip their workforce for the challenges of the future, ultimately contributing to sustainable economic growth and social development in the region.

The investigation identified both benefits and challenges, along with a rationale for aligning MCs with existing policy directions in the studied countries, focusing on openness, accessibility, affordability, and innovation. As MCs gain prominence as catalysts for democratizing education, this paper highlights their importance for regional development and could serve as a valuable resource for the wider educational community and policymakers interested in implementing MCs and supporting more open access to official educational credentials.

CONCLUSION

Micro-credentials represent a promising solution to many of the educational challenges faced by Caribbean nations. They provide flexible, cost-effective pathways for learners to acquire skills that align with labor market demands while fostering lifelong learning and personalized education. Despite these advantages, their successful implementation requires overcoming substantial

barriers such as quality assurance, stakeholder engagement, equitable access, and systemic alignment with existing educational frameworks.

To fully realize the potential of MCs in the Caribbean context, a collaborative approach is essential. Policymakers, educators, and industry leaders must work together to establish standardized frameworks that ensure credibility and relevance while addressing local needs. By integrating MCs into regional education systems with an emphasis on accessibility, affordability, and innovation, Caribbean nations can create a more adaptable workforce equipped to meet future challenges. Ultimately, MCs could serve as a catalyst for educational reform and economic growth in the region, bridging skill gaps and enhancing opportunities for all learners.

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REFERENCES

Ali, E. R. (2023). *A Position Paper for Establishing a CXC®® Micro-credentialing system (MCS) [DO NOT SHARE]*. CXC® Caribbean Examinations Council.

Ali, E. (2024). *Tables and Definitions*.

Ashizawa, S., Ziguras, C., & Yonezawa, A. (2024). Convergence or fragmentation? Recent developments in recognition of microcredentials and their impact on higher education in Asia and the Pacific. *Journal of International Cooperation in Education*. https://www.emerald.com/insight/content/doi/10.1108/JICE-11-2023-0031/full/pdf?title=convergence-or-fragmentation-recent-developments-in-recognition-of-microcredentials-and-their-impact-on-higher-education-in-asia-and-the-pacific

British Council. (n. d.). *National STEAM Education Report Jamaica: Towards Developing a Strong STEAM Ecosystem* https://www.net.org.jm/wp-content/uploads/2022/10/British-Council-STEAM-Education-Report-October-2022.pdf

Brown, M., McGreal, R., & Peters, M. (2023). A Strategic Institutional Response to Micro-Credentials: Key Questions for Educational Leaders. *Journal of Interactive Media in Education,* vol. 7, no. 1, pp. 1 - 17. https://jime.open.ac.uk/articles/10.5334/jime.801

Business Development Unit. (2024). *Providing Personalized Learning Pathways*. University of The West Indies St. Augustine Campus. https://sta.uwi.edu/fss/sites/default/files/fss/images/BDU%20Corporate%20Brochure%20and%20Offerings%202023_compressed.pdf

Commonwealth of Learning. (2023). *COL commences building a series of MOOCs with UTT*. https://www.col.org/news/col-commences-building-a-series-of-moocs-with-utt/

Commonwealth of Learning. (2024). *COL and the Caribbean Examinations Council sign Memorandum of Understanding*. https://www.col.org/news/col-and-the-caribbean-examinations-council-sign-memorandum-of-understanding/

Commonwealth of Learning. (2024). *Supporting skills training for young men and boys in Jamaica*. Author. https://www.col.org/news/supporting-skills-training-for-young-men-and-boys-in-jamaica/

Commonwealth of Learning. (2024). *Antigua and Barbuda's Education Minister prioritises teacher development*. Author. https://www.col.org/news/antigua-and-barbudas-education-minister-prioritises-teacher-development/

CXC®. (n. d.). *Caribbean Vocational Qualification: Requirements and Guidelines for School Administrators and Principals*. https://moey.gov.jm/wp-content/uploads/2022/06/CVQ-handbook.pdf

CXC®. (n. d.). *The Roles of Each Partner in the CV Award*. https://www.CXC®.org/SiteAssets/CVQ/cvq-the-roles-of-each-partner-in-the-cvq-award.pdf

Dyer, R. A. D. (2014). Exploring the relevancy of Massive Open Online Courses (MOOCs). A Caribbean University Approach. *Information Resources Management Journal (IRMJ), Special Issue on MOOCs: the challenge of the future,* vol. 27, no. 2. https://core.ac.uk/download/pdf/80774031.pdf

Kazin, C., & Clerkin, K. M. (2018). The potential and limitations of microcredentials. *Service Member Opportunity Colleges*. https://supportsystem.livehelpnow.net/resources/23351/Potential%20and%20Limitations%20of%20Microcredentials%20FINAL_SEPT%202018.pdf

Keevy, J. (2020). (Un)recognising learning in our digital age. . *Working Paper.* https://www.academia.edu/41515579/_Un_recognising_learning_in_our_digital_age_Working_Draft

Maggioncalda, J. (2024). Guyana Launches National Training Initiative with Coursera to Empower Every Guyanese Citizen and Public Sector Employee with In-Demand Skills. *Coursera Blog*. https://blog.coursera.org/guyana-launches-national-training-initiative-with-coursera-to-empower-every-guyanese-citizen-and-public-sector-employee-with-in-demand-skills/

McGreal, R., Mackintosh, W., & Lane, D. (2023). OER-based Online Micro-courses. *Journal of Open, Flexible and Distance Learning,* vol. 27, no. 1. https://www.jofdl.nz/index.php/JOFDL/article/view/599

Ministry of Education. (2021). *Guyana Education Strategic Plan (ESP) 2021- 2025* https://education.gov.gy/en/index.php/policies/sector-plan/4212-esp-2021-2025#:~:text=The%20Guyana%20%22Education%20Strategic%20Plan,and%20lifelong%20learning%20for%20all

Ministry of Education. (2023). *Education Policy Trinidad and Tobago* https://storage.moe.gov.tt/wpdevelopment/2023/09/Education-Policy-2023-2027.pdf

Ministry of Education. (n. d.). *Guyana National Report on Technical and Vocational Education and Training(TVET)* https://www.ilo.org/wcmsp5/groups/public/---americas/---ro-lima/---sro-port_of_spain/documents/meetingdocument/wcms_306331.pdf

Ministry of Education Culture Science Technology. (2021). *Belize Education Sector Plan 2021-2025: Making Education Work* https://www.moecst.gov.bz/belize-education-sector-plan-2021-2025/

Ministry of Education Technological & Vocational Training. (2023). *Reimagining Education in Barbados* https://mrd.gov.bb/attachments/Education%20Reform-FINAL-WA.pdf

Mishra, S. (2022). *Flexible Learning in a Digital Age: Towards a Micro-credential Framework* 2nd Ministerial Summit of the Caribbean Examination Council (CXC®), Virtual Presentation, St George's, Grenada. https://oasis.col.org/server/api/core/bitstreams/91025552-903f-4756-92a4-d153e4eb5f52/content

National Training Agency. (2014). Grenada *NTA Strategic Plan* https://www.grenadanta.gd/wp-content/uploads/2016/07/PRESENTATION-NTA-Strategic-Plan-v1.0.pdf

OECD. (2021). *OECD Educational Policy Perspectives* https://www.oecd-ilibrary.org/docserver/f14ef041-en.pdf?expires=1707938566&id=id&accname=guest&checksum=BB0CB5A3D433391FDB71B06724DF3BB3

Ralston, S. J. (2021). Higher Education's microcredentialing craze: a postdigital-Deweyan critique. *Postdigital Science and Education, 2021*, vol. 3, pp. 83 - 101. . https://doi.org/10.1007/s42438-020-00121-8

Rossiter, D., & Tynan, B. (2019). *Designing and Implementing Micro-Credentials: A Guide for Practitioners* [http://hdl.handle.net/11599/3279]. Commonwealth of Learning. https://oasis.col.org/items/e2d0be25-cbbb-441f-b431-42f74f715532

St. Christopher and Nevis Accreditation Board Secretariat. (2015). *National Qualifications Framework for St. Kitts and Nevis (SKN-NQF) and A Unified System of Credits*

Teachonline.ca. (2024). *Navigating the **Challenges** of Micro-Credentials*. Contact North/Contact Nord,. https://teachonline.ca/tools-trends/navigating-challenges-micro-credentials

The Accreditation Council of Trinidad and Tobago. (2022). *Regulation of Micro-Credentials in Trinidad and Tobago: A Proposal* https://www.actt.org.tt/images/documents/Consultations/2022/Standards_Micro-credentials.pdf

The Grenada National Accreditation Board. (n. d.). *Guidelines for Short Course Accreditation*. Author. https://accreditation.gd/wp-content/uploads/2022/05/Guidelines-for-Short-Course-Accreditation.pdf

The Jamaica Education Transformation Commission. (2021). *The Reform of Education in Jamaica, 2021 [Disclaimer: This is a working report and is not for citation without permission until the final version is presented.]* https://nationwideradiojm.com/wp-content/uploads/2022/01/2021-8-JETC-Patterson-Report.pdf

The University Council of Jamaica. (n. d.). *Guidelines for the Accreditation of Short Courses*. Author. https://www.actt.org.tt/images/documents/Guidelines%20for%20the%20Accreditation%20of%20Short_%20Courses.pdf

Transnational Qualifications Framework Management Committee. (2015). *Transnational qualifications framework for the Virtual University for Small States of the Commonwealth*. Commonwealth of Learning. https://doi.org/http://hdl.handle.net/11599/501

UNESCO. (2019). *Global Convention on the Recognition of Qualifications concerning Higher Education*. Author. https://www.unesco.org/en/legal-affairs/global-convention-recognition-qualifications-concerning-higher-education?hub=66535

UNESCO. (2020). *TVET Country Profile: Grenada*. UNESDOC Digital Library. https://unesdoc.unesco.org/ark:/48223/pf0000373701

UNESCO Education Sector. (2018). *Digital Credentialing: Implications for the recognition of learning across borders*. UNESCO. https://oer4nosp.col.org/id/eprint/16/1/264428eng.pdf

UWI Open Campus. (2017). *Continuing & Professional Education Framework*

UWI St Augustine. *Microcredentials Accelerator Path Programme*. https://sta.uwi.edu/fss/microcredentials-accelerator-path-programme-school-education-bundle

Wheelahan, L., & Moddie, G. (2021). Analysing micro-credentials in higher education: a Bernsteinian analysis. *Journal of Curriculum Studies,* vol. 53, no. 2. https://www.tandfonline.com/doi/full/10.1080/00220272.2021.1887358

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