Readings in Philippine History as GEC: 4IR Ready?

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Abstract

The vitality of the industry impacts the academe in many aspects. The most pressing change in the sector cascaded in the academe is the Fourth Industrial Revolution or 4IR. The paper, with the World Economic Forum’s top 10 skills needed in 2025 as a framework, determined the readiness of Readings in Philippine History as a General Education Course core subject to the prerequisites of 4IR through Content Analysis. Nine of the ten WEF skills matched the learning competencies. These said competencies were incorporated into the strategies for teaching, instructional materials used, and assessment of learning conducted, but an essential feature of 4IR, the use of technologies for future skills, needed to be improved.

INTRODUCTION

The role of industry and the academe intertwined (Liu et al., 2021; Kipper et al., 2021; Masaro et al., 2021). Liu and his research associates (2021) posit that the concepts learned and skills developed by the learners while in school are then applied in the industry. This was supported by the claim of Kipper et al. (2021), who recognized the need to collaborate among companies, governments, and universities, especially in identifying the essential learning competencies. Moreover, Masaro and his team (2021) recognized the importance of proactive stakeholder collaboration.

As the industry defines the skills needed by the workforce members, the academe responds through a carefully designed curriculum, equipping the graduates with the necessary skills to meet the demands of the industrial workforce (Kipper et al., 2021; Maisiri et al., 2019). A conceptual map highlighting the essential competencies required by Industry 4.0 was identified by Kipper and associates (2021) in the scientific mapping of issues conducted. On the other hand, skills development framework 4.0 was crafted in the scientific investigation in the South African setting (Masiri et al., 2019).

With the academe at the helm, as one of the crucial partners of the industry in 4IR, it is, however, continuously challenged by the dynamism that characterizes the latter. One of the recent challenges is the migration from the third industrial revolution to the fourth industrial revolution or 4IR. Thus, the academe crafted the 4IR responsive curriculum as a rejoinder (Ramirez, 2018; Tirol, 2020). As the academe braces from the challenges of 4IR, various options are explored. One is the proposed Sustainability standards as a quality assurance framework among the Philippine higher education institutions (Ramirez, 2018). Conversely, the study of Tirol (2020) recognized the need for innovative curricula responsive to real-world challenges.

With the academe obliged to conform to the mandates of the 4IR, higher education institutions undeniably play a critical role (Oliver, 2022; Penprase, 2018; Telukdarie & Munsamy, 2019). Saito, as cited by Oliver (2022), emphasized the influence of higher education institutions in shaping the lives of learners as they firm up their beliefs, establish their identities, develop their aspirations, and hone their skills, which will eventually impact their future. Moreover, universities impact the learners’ future through the stimulus provided, like the pedagogies that yield creative thinkers with practical skills (Penprase, 2018). Also, higher learning institutions have evolved into technological hubs, providing opportunities to develop the skills needed by the industry in the future (Telukdarie & Munsamy, 2019).
This paper is premised on the top 10 skills needed in 2025 according to the World Economic Forum (Whiting, 2020) as the framework. The said skills are enumerated as follows: (1) analytical thinking and innovation; (2) active learning and learning strategies; (3) complex problem solving; (4) critical thinking and analysis; (5) creativity, originality, and initiative; (6) leadership and social influence; (7) technology use, monitoring and control; (8) technology design and programming; (9) resilience, stress tolerance and flexibility; (10) reasoning, problem-solving and ideation. These are must skills.

Schwab, the founder and executive chair of the World Economic Forum, emphasized that these skills are considered "must" skills to be developed among the learners for them to navigate into a transformative society with intimidating challenges coupled with captivating opportunities influenced by the advancement in technology (Leaders, 2016).

In the New General Education Curriculum, Readings in Philippine History is one of the eight core subjects designed to provide opportunities for learners to develop intellectual competencies, personal and civic responsibilities, and practical skills (CMO No. 20, series 2013). These are congruent to the top 10 skills needed in 2025 identified by the World Economic Forum (WEF).

With WEF’s top 10 skills needed in 2025 as the framework, the paper generally analyzed the responsiveness of Readings in Philippine History as a General Education Course core subject in the milieu of 4IR. Specifically, the paper analyzed the receptiveness of the university-approved syllabus on Readings in Philippine History to the skills demanded by the 4IR. Finally, the paper answered the central question of whether the Readings in Philippine History as a General Education Course core subject is 4IR ready based on the analysis of the university-approved syllabus. The analyzed results may serve as basis for curriculum revision as the academe is perpetually challenge to be relevant to the dynamic industry and society. Further, as the next step, the results may similarly aid in the crafting of research-based instructional materials embedding the top 10 skills demanded in 2025, a concrete response to the demand to offer relevant curricula in the ever-changing society.

METHODS

The paper utilized qualitative Content Analysis to examine the university-approved syllabus in Readings in Philippine History as one of the eight core subjects in the New General Education Curriculum. The syllabus complies with the Commission on Higher Education Memorandum Order No. 20, series 2013, regarding the essential features, namely, the course descriptions, learning outcomes, content topics, required number of hours, and credit units (CMO No. 20, series 2013). Seven panel of evaluators used a two-part Inventory Guide (IG) as a tool for analysis to determine the responsiveness of the syllabus to 4IR. The first part of the IG consists of 45-item multiple choice questions, whereas the second part comprises 15-item open-ended questions for quantitative and qualitative appraisal. Further, both the multiple-choice and open-ended were divided into three sub-parts: (1) strategies for teaching versus the target learning outcomes, (2) instructional materials used in teaching versus the target learning outcomes, and (3) assessments of learning versus the learning outcomes. The IG as a tool similarly determined the frequencies of the World Economic Forum’s top 10 skills identified needed in 2025 reflected in the strategies, instructional materials, and assessments used. The seven-panel evaluators who examined the syllabus were chosen based on their expertise, specifically their educational preparation, field of specialization, and experience in developing instructional materials. Copies of the syllabus on Readings in Philippine History were distributed to each panelist along with the Inventory Guide. They were given three months to complete the quantitative and qualitative examination of the syllabus. Based on the evaluation done by the panelists on part 1 of the IG, the Content Validity Ratio for each item was determined, followed by the Content Validity Index crossed-checked with the critical value (Nikolopoulou, 2023). Additionally, the panelists’ responses in the second part of the IG were analyzed using pre-determined themes, which are responsiveness to strategies for teaching, responsiveness to the instructional materials used, and responsiveness to the assessment of learning.

RESULTS

This section provides the analysis results about the responsiveness of Readings in Philippine History as a General Education Course (GEC) core subject in the milieu of 4IR. As the status of Readings in Philippine
History as GEC in the context of 4IR is established, its responsiveness using the university-approved syllabus as reflected in the strategies for teaching, instructional materials used, and assessment of learning were equally explored. Likewise, the results revealed whether the Readings in Philippine History as a GEC core subject is 4IR ready with the university-approved syllabus as the basis for analysis.

Readings in Philippine History as GEC in the context of 4IR

It is important to note that the analysis used the World Economic Forum’s top 10 skills needed in 2025 as the framework. To reiterate, these are (1) analytical thinking and innovation, (2) active learning and learning strategies; (3) complex problem solving, (4) critical thinking and analysis, (5) creativity, originality and initiative; (6) leadership and social influence; (7) technology use, monitoring and control; (8) technology design and programming; (9) resilience, stress tolerance and flexibility; (10) reasoning, problem-solving and ideation (Whiting, 2020).

The Readings in Philippine History is one of the eight core subjects in the General Education Curriculum (CMO No. 20, series 2013). The General Education Courses anchor on three general outcomes categorized into Intellectual Competencies, Personal and Civic Responsibilities, and Practical Skills.

The Intellectual Competencies (IC) aim for the learners to analyze critically the written, visual, and oral texts. The ICs include the expectation for the learners to demonstrate proficient and effective writing, speaking, and using new technologies as a form of communication. Also, the ICs aim for the learners to use the basic historical concepts applicable across the knowledge domains. Learners must also demonstrate critical, analytical, and creative thinking skills.

Meanwhile, in the Personal and Civic Responsibilities competencies, the learners are expected to examine the contemporary world from the Philippine and global perspectives. Moreso, learners hope to take responsibility for knowing and being Filipino and reflect critically on shared concerns. Furthermore, eventually, to act on situations manifesting personal and meaningful contributions to the country’s development.

Moreover, for the expected competencies along with Practical Skills, the learners are supposed to work effectively in a group. The competencies include the expectation to navigate the updated technology to assist them in their learning tasks. Eventually, the learners exhibit behavior manifesting responsible and productive thinking, which characterizes lifelong learning.

Based on the CMO, the study of Philippine History will focus on the same historical events, however viewed from different perspectives using primary sources representing various historical periods. This premise means Philippine historical events will be studied in a new dimension, with diverse viewpoints, discovering new meanings through the analysis and interpretations dominated by primary sources. The revision is a radical change from the traditional way of learning History through a chronological approach.

From the three general outcomes (Intellectual Competencies, Personal and Civic Responsibilities, and Practical Skills), the same CMO provides the specific learning outcomes for Readings in Philippine History enumerated as follows: (1) Evaluate primary sources for their credibility, authenticity and provenance, (2) Analyze the context, content and perspective of the different kinds of History, (3) Determine the contribution of different kinds of primary sources in understanding Philippine History, (4) Develop critical and analytical skills with exposure to primary sources, (5) Demonstrate the ability to use primary sources to argue in favor or against a particular issue, (6) Effectively communicate, using various techniques and genres, their historical analysis of a particular event or issue that could help others understand the chosen topic, (7) Propose recommendations/solutions to present-day problems based on their understanding of root causes and their anticipation of future scenarios, (8) Display the ability to work in a team and contribute to a group project, (9) Manifest interest in local History and concern in promoting and preserving our country’s national patrimony and cultural heritage (CMO No. 20, series 2013).

The specific learning outcomes identified in the CMO are congruent to the WEF top 10 skills needed in 2025. Table 1 captures the similarities between the two sets of skills needed in the industry and society from two different sources.
Table 1. Establishing congruence between the WEF top 10 skills needed in 2025 and the specific learning competencies in Readings in Philippine History as GEC

<table>
<thead>
<tr>
<th>WEF top 10 skills needed in 2025</th>
<th>Specific learning competencies in Readings in Philippine History (CMO 20.s.2013)</th>
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<tbody>
<tr>
<td>(1) analytical thinking and innovation;</td>
<td>(2) Analyze the context, content, and perspective of the different kinds of History. (7) Propose recommendations/solutions to present-day problems based on their understanding of root causes and anticipation of future scenarios.</td>
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<td>(2) active learning and learning strategies,</td>
<td>(6) Effectively communicate, using various techniques and genres, their historical analysis of a particular event or issue that could help others understand the chosen topic. (8) Display the ability to work in a team and contribute to a group project.</td>
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<tr>
<td>(3) complex problem solving,</td>
<td>(7) Propose recommendations/solutions to present-day problems based on their understanding of root causes and anticipation of future scenarios.</td>
</tr>
<tr>
<td>(4) critical thinking and analysis;</td>
<td>(1) Evaluate primary sources for their credibility, authenticity, and provenance. (3) Determine the contribution of different primary sources in understanding Philippine History. (4) Develop critical and analytical skills with exposure to primary sources. (5) Demonstrate the ability to use primary sources to argue in favor or against a particular issue.</td>
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<tr>
<td>(5) creativity, originality and initiative;</td>
<td>(6) Effectively communicate, using various techniques and genres, their historical analysis of a particular event or issue that could help others understand the chosen topic. (8) Display the ability to work in a team and contribute to a group project. (9) Manifest interest in local History and concern in promoting and preserving our country’s national patrimony and cultural heritage.</td>
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<td>(6) leadership and social influence;</td>
<td>(8) Display the ability to work in a team and contribute to a group project.</td>
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<tr>
<td>(7) technology use, monitoring, and control;</td>
<td>(6) Effectively communicate, using various techniques and genres, their historical analysis of a particular event or issue that could help others understand the chosen topic.</td>
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<tr>
<td>(8) technology design and programming;</td>
<td>(6) Effectively communicate, using various techniques and genres, their historical analysis of a particular event or issue that could help others understand the chosen topic. (8) Display the ability to work in a team and contribute to a group project.</td>
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<td>(9) resilience, stress tolerance, and flexibility;</td>
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WEF top 10 skills needed in 2025 | Specific learning competencies in Readings in Philippine History (CMO 20.s.2013)
---|---
(10) Reasoning, problem-solving and ideation | (7) Propose recommendations/solutions to present-day problems based on their understanding of root causes and their anticipation of future scenarios.

Notably, all the nine specific learning competencies indicated in the university-approved syllabus matched the nine WEF top 10 skills recognized as needed by 2025. It is conspicuous that the top 8 skills—technology design and programming—missed the match in any specific learning competencies specified in the university-approved syllabus.

Among the WEF top 10 skills needed in 2025, the top 4 skills—critical thinking and analysis, creativity, and the top 5 skills, originality, and initiative—were the most frequently matched among the specific learning outcomes. These were followed by the top 1 skill—analytical thinking and innovation; top 2 skill—active learning and learning strategies; top 3 skill—complex problem solving; and top 9—resilience, stress tolerance, and flexibility.

Readings in Philippine History’s strategies for teaching, instructional materials used, and assessment of learning in the context of 4IR

The university-approved syllabus in Readings in Philippine History as General Education course core subject complies with the syllabus issued by the Commission on Higher Education (CHED)—the CHED acts as a regulatory body among the higher education institutions in the Philippines. For this study, to determine the readiness of the curriculum, particularly of the Readings in Philippine History, the university-approved syllabus was content analyzed. That being the case, the said syllabus was scrutinized on three essential parts—the strategies for teaching, instructional materials used, and assessment of learning—against the WEF top 10 skills needed in 2025.

For context, in terms of the content topics, there are five of them strategically distributed among the 54 hours allotted for the entire semester. These are Content Topic 1—introduction to the Study of History, Content Topic 2—content and contextual analysis of sources, Content Topic 3—controversial and conflicting issues in Philippine History, Content Topic 4—social, political, economic, and Cultural issues in Philippine History, and content topic 5—Bicol local History. These content topics were paired with the appropriate strategies for teaching, instructional materials used in teaching, and assessment of learning to find out whether the specific learning outcomes were met.

A Content Validity Index of 0.85 against the 0.99 critical value revealed the status of Readings in Philippine History in the setting of 4IR. This is, however, limited to the three essential features of the university-approved syllabus, to reiterate, enumerated as strategies for teaching, instructional materials used, and learning assessment.

In the light of the strategies used for teaching, these are identified as lecture method, guided discussion, analysis of primary sources using activity sheet, debate, round table discussion, Social Science Inquiry Model, and experiential learning. Some of the comments written by the panelist are, "The strategies used in teaching, for getting the content topic across, are supportive of the skills expected to be developed among the learners on the skills identified by the WEF." Another wrote, "The teaching strategies mostly would call on the learners to think critically." Meanwhile, "Strategies for teaching are motivational as well as would entail for the students to think critically," added by another panelists.

To make the teaching and learning of the content topics vivid, exciting, and meaningful instructional materials are used. These are identified as copies of primary sources in written texts, powerpoint presentations, documentary movies, audio-video materials, and visuals-paintings. The recorded observations of the panelists as reflected in their comments, include, "There were attempts to incorporate technologies in the teaching
of history, but still to a limited degree”. Another panelist wrote, ”Most of the instructional materials are conventional.” Additionally, one of the panelists commented, ”The written texts, but of course, these are primary sources, are still in written forum. Something that mismatched the traits of today’s students since most of them no longer read. Unless, of course, required”. Other comments are,

"The audio-video and documentary films are used minimally. Only on three instances, I suppose”. ”Good, paintings are included as an instructional resource.”

On the assessment of learning as indicated in the syllabus, these were identified as pen and paper test, writing critique paper, essay writing, debate, round table discussion, conducting research on the relevant socio-political, economic, and cultural issues, writing critique paper, letter writing to the newspaper editor. Some of the comments given by the panelist on the assessment of learning include,”Assessment of learning mostly falls on the category of authentic assessment”. ”Minimal pen and paper test, dominant are authentic assessments.” Meanwhile, another commented, “Prominent are authentic assessments.” Additional comments include ”Assessments would usually test the application of what had been learned.” And”Assessments build-up, an application mostly of what should have been learned from content topic one until the last content topic” added by another.

**DISCUSSION**

Plotting the WEF top 10 skills needed in 2025 against the nine specific learning competencies revealed the alignment between the two sets of aptitudes for the learners to be proficient in 4IR. This supports the undeniable link between the academe and the industry (Oliver, 2022; Penprase, 2018; Telukdarie & Munsamy, 2019). As Oliver (2022) explained, the academe, concretely represented by the higher learning institutions, is influential in developing specific skills among the learners who later will become members of the industry’s workforce. Additionally, higher education institutions are expected to scale up education to remain relevant and responsive, an essential component of the society influenced by the industry (Penprase, 2018). Meanwhile, Telukdarie and Munsamy (2019) recognized the role of higher education institutions as a platform for developing the skills required for the future.

In aligning the WEF top 10 skills needed in 2025 and the CHED-issued specific learning outcomes adopted in the university syllabus, it is evident that the top 8 skills- technology design and programming failed to match any specific learning competencies. The GEC core subject, Readings in Philippine History, leads the learners to revisit the historical events in the country, which happened in different eras, from the lens of primary with few secondary sources as tools. Although the approach focuses more on analyzing historical sources, mainly the primary and a few secondary, most of the sources are in written form. Written texts may be viewed as the “soul of the society” (Reiter, 1995) from the perspectives of historians, yet they may have a different impression on the students who are studying history.

Under the present situation of teaching Readings in Philippine History as a GEC core subject, the top 8 skill-technology design and programming is slightly explored. This aligns with the findings of Kee (2014) that while updated technologies are available for teaching history, these are minimally used. He further claimed that the limited use of technologies by historians and history teachers is due to the failure to realize how these digital tools supplement and improve conventional teaching tools like books.

It is important to note, though, that previous studies revealed that new technologies are already used to make the teaching and learning of History engaging and meaningful (Haydn, 2013; Kee, 2014; Kelly, 2013; McCall, 2016). The teachers of History made attempts to incorporate new technologies in the teaching of History. For example, McCall (2016) explored using digital games in teaching History, discovering it as a best practice. Meantime, Haydn (2013) emphasized the use of technology in teaching History as an opportune way of learning where essential points could be highlighted more vividly and compellingly. This further means adopting technology; digital History, in particular, is complimentary to other forms of History, thus facilitating human understanding (Kelly, 2013).

Given the condition, an essential feature of 4IR is the use of technologies for higher-order thinking (Arek-
Bawa & Reddy, 2022; Marwala, 2021) yet minimally used as reflected in the identified strategies for teaching, instructional materials used and assessment of learning in the university approved syllabus for Readings in Philippine History is wanting. Given that an experiential digital curriculum is essential to equip the learners better to face the challenges of the industry and society, this has to be recognized as a reality in a 4IR classroom (Arek-Bawa & Reddy, 2022). This claim was supported by Marwala (2021), who recognized the challenges of 4IR changing the academic landscape.

The discovery of the limited application of updated technologies in the matching of the WEF top 10 skills needed in 2025 against the specific learning outcomes is affirmed by the analysis of the occurrences when the WEF skills are reflected in the three essential parts of the university-approved syllabus- the strategies for teaching, instructional materials used and the assessment of learning.

Nevertheless, despite the congruence among the WEF top 10 skills needed in 2025 and the specific learning competencies in Readings in Philippine History, the analysis of strategies for teaching, instructional materials used, and the assessment of learning indicated in the university-approved syllabus confirms the said GEC core subject has still to satisfy the most important feature of 4IR which is the use of digital technology. This is affirmed by the literature implying the same situation in selected countries like South Africa, Vietnam, and Japan (Chung et al., 2022; Olaitan & Mavuso, 2022; Oliver, 2022). To fill in the gaps in terms of readiness of the higher education institutions, strategies were identified like adopting an innovation-driven model (Chung et al., 2022), conducting intensive curricula review (Olaitan & Mavuso, 2022), and exploring practical leadership and partnership among stakeholders (Oliver, 2022).

With the premise of gaps between the skills currently developed among the learners in higher education institutions and the 4IR skills, there is undeniably a demand for strategies to close these gaps.

CONCLUSION

The Readings in Philippine History as a General Education Course core subject is yet 4IR ready based on the analysis of the university-approved syllabus. The paper, however, is limited to the analysis of skills expected for the learners to develop as deduced from the strategies for teaching, instructional materials used, and learning assessment, along with the matching between the WEF top 10 skills needed in 2025 and the specific learning competencies. Significant features of 4IR, which are the use of technologies and the development of future skills, are to be given the utmost attention to be fully 4IR compliant. Other facets of 4IR, such as support to curricula like infrastructure, access to solid internet connectivity, and tangible technological innovations, should have been explored in determining the readiness of Philippine History as a core GEC subject. Further research on factors that hinder curriculum readiness in a developing country like the Philippines has to be considered.

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