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Integrative Learning in History Education: A Systematic Literature Review

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Abstract

In general, history is a construction of the past that should use models, methods, and concepts of other social sciences to explain the changes or events throughout human life and civilization. Thus, the assumption that history should be explained from a broader perspective of social sciences and the deep analysis of social theory has transformed the need for an interdisciplinary approach in history education. In the quest for an advanced learning approach to history education, this article proposes integrative learning as an approach that could meet the need for the integration of various perspectives and theories from social science disciplines in learning history. Constructively explained through a systematic literature review of related studies oriented towards history, interdisciplinary, multidisciplinary, and integrative learning, this article works on the possibility of integration encompassing four steps, namely establishing a purpose, understanding and leveraging disciplinary insights, leveraging integration, and critical stance. Despite the lack of empirical research, integrative learning is a promising concept that could improve the method of fostering high-order thinking skills in history education.

Keywords: History Education, Integrative Learning, Interdisciplinary Understanding

A. Introduction

History is one of many essential subjects at schools to strengthen learners' nationalism and national identity. Learning history is not solely for knowing important milestones in the past but also for breaking down threads of past events with a scientific

approach and future orientation. Practically, most youths consider history subjects unnecessary, old-fashioned, outdated, and past-oriented. Learners regard history lessons as bland and uninteresting subjects because they must memorize past events, royal names, dates, and years of the events. Also, the pedagogy of history is conventionally delivered through lectures, questions and answers, and assignments, or based on such a "behaviorism" or "structuralism" approach (Subakti, 2010). Thus, it has resulted in learners only working procedurally and understanding history without reasoning. It is oriented to emphasizing memorization and making poor preparation for learners' later professional work. Therefore, the efforts to foster historical awareness among the millennial generation should be done in different ways from the previous generation.

Here, historian and history educator are at least partially responsible for the shift away from a content-area reading comprehension toward a discipline-specific-oriented approach (Massey, 2015). Teachers is considered as the most important agents in history education, must possess a deep understanding of both historical interpretation and inquiry before they can engage their learners in historical thinking (Bain, 2006; van Hover et al., 2007). This notion has a strong relation with what Cohen (1989) declared two decades ago, he stated that teaching is an "impossible profession" because of its complexity, nuance, and uncertainty. Obviously, every subject matter has its own challenges, but teaching history —with its overwhelming volume of content, its ever-present potential for controversy, some subjectivity issue, and its uneasy status within the school curriculum— seems to legitimate Cohen's notion (Shemilt, 2018).

What experts know about history is a story with more differentiation and more connections, with a deeper level of explanations and more hedges. Nonetheless, to understand history, as a non-expert, is just to know the story. (Wineburg, 1999), Perfetti (2012), and (Massey, 2015) have critically reported on the cognitive psychology distinction between experts and novices in understanding history. They argued that history is not just a typical story, but a very good story. Moreover, good stories are complex with rich connections and events that play multiple roles and multi-layered interpretations. However, the teaching of history faces additional problems of time and resource limitations. Some things will be emphasized, and some things will be left out. In many cases, it is the attempt to communicate complexity that is omitted. For example, historical causation as the interplay of social forces is often overlooked and replaced with a simple story about dates and names (Perfetti, 2012).

The transformation of historical analysis and historiography presented the Annales school of social-economic history that broke radically with traditional historiography by insisting on the importance of taking all levels of society into consideration and emphasizing the collective nature of mentalities (Hunt, 1986). Annalese scholars rejected the predominant emphasis on politics, diplomacy, and war of many 19th and early 20th century historians, instead of exploiting an approach to a study of long-term historical structures over events and political transformations (Fink, 1996; Harsgor, 1978). As the result, the need for a fusion of economic, social, and cultural history was increasingly felt and synthesis was embroidered on the new flag, and the Annalesse scholars believed that

history is the synthesis of all social sciences turned towards the past (Burke, 1990). It is important to taking consideration about what the state of history as discipline, as Klein stated that the nature of history is a "synoptic discipline" because it tends to integrate knowledge from a various of contexts, and go beyond the interdisciplinary approach in attempt to reconstruct the past (Bryan & Klein, 1998). If we Cross-fertilization of history with economics, sociology, literary theory, and other disciplines, so it will enable historian to explore the broader scope and expand their evidentiary base. Furthermore, to understanding many of the real-world problems is too rigid if just depend on a single disciplinary system.

Thus, an integration of a multidisciplinary explanatory framework in history education is required to give a comprehensive explanation of history. As stated by Kocka (1977) history is an integrative approach to all aspects of human existence, it has a strong reliance to other discipline in particular social and humanities. Thus, the assumption that history should be explained from the broader perspective and the connection between history and on the deep analysis of social theory transformed the interdisciplinary approach in history pedagogic. Many innovations in history pedagogic approach have been developed and many of them are relevant in efforts to promote high-order thinking in student through some advanced approach. For example, the implementation of critical pedagogy in controversial history (Ahmad et al., 2014; Hunter, 2018) is effective in directing students to be analytical toward controversial history; the deconstructive learning model (Sutimin, Sariyatun, & Abidin, 2018) is a solution to eliminate the rigidity of chronological thinking in historical learning and reduce historical students' passiveness; the problem-based learning provided the opportunity to critically construct their own knowledge and answer historical questions based on their analysis of a variety of sources (Brush & Saye, 2014; Saye & Brush, 2002, 2007), and many more.

Empirically, the implementation of an integrative learning approach in history lessons has shown that the combination of two or more different disciplinary concepts could create new insights which cannot merely arise through a single disciplinary perspective (Mansilla & Duraisingh, 2007; Mansilla, Duraisingh, & Haynes, 2009). Mansilla, Miller, & Gardner (2000) stated that integrative learning as an interdisciplinary approach could extend historical inquiry by integrating it with various distinct concepts, tools, and modes of thinking from another discipline to stimulate a new understanding that could not have arisen through a historical lens alone. There are previous studies that share a similar notion in enhanced integration of learning in history education. Also, according to Duraisingh & Mansilla (2007), the implementation of integrative learning which combines history and art perspectives could enhance students' ties with the past and their feelings about the relevance of past events to the present. In the idea of the integration of learning in history, However, there is no clear and rigid examination of whether it is possible to use integrative learning in history education, as a conceptual foundation, this article discussed the possibility of using an integrative learning approach in the quest of developing an advanced way in learning history.

B. Research Methodology

This article used a systematic literature review as a method for analyzing the current stance based on the previous research and proposing a new alternative to the issue. Basically, a literature review could broadly be used as a systematic way of collecting and synthesizing previous research (Snyder, 2019; Tranfield et al., 2003). To construct a better literature review, there are some approaches to present a well-organized literature review such as integrative literature review, meta-analytic literature review, and systematic literature review. These approaches provide a critical method to arrange a deep analysis or a critical research question. To conduct a systematic literature review, researcher should systematically collect findings from multiple studies then critically evaluating, integrating, and presenting findings of these studies to build a strong-based research question or topic of interest (Pati & Lorusso 2018; Denyer & Tranfield, 2009). According to Snyder (2019) in a systematic review, researcher identify all theories and empirical evidence that fits the pre-specified inclusion criteria to answer a particular research question or hypothesis.

However, when literature review to become a proper research methodology, it requires proper steps to ensure that the review process is credible, accurate, and capable of reducing bias. Moher et al (2016) stated that the main purpose of systematic literature review is to reducing the bias by using explicit and systematic methods when reviewing articles and all available evidence, thus it helps the investigator to obtain reliable findings before drawing conclusion and decision. There are various standards and guidelines for conducting a systematic literature review, and generally, they cover four basic steps, including 1) designing the review, 2) conducting the review, 3) analysis and 4) writing out the review (Denyer & Tranfield, 2009; Moher et al., 2016; Pati & Lorusso, 2018; Snyder, 2019; Wong et al., 2013).

In the present study, the first phase of the systematic review was done by defining a multi-disciplinary scope related to the study. It was important to position history as a discipline and find its framework related to multi-disciplinary works. Any literature in education that explained integrative learning as a pedagogical approach was considered in this study. The second phase, conducting a review, was undertaken by compiling literature based on the disciplines that had been taken into account in the previous phase. In terms of history as a basic perspective in history education, several pieces of literature which combined history and other social theories were analyzed, such as the works of Braudel (2009); Peter Burke (1993); and Marshall & Skocpol (1986). Besides, any literature that discussed integrative learning (Boix Mansilla, 2008; Leonard, 2012; Huber, Hutchings, & Huber, 2004; Carey, 2005; Klein, 2005), multidisciplinary and interdisciplinary approaches (Boix Mansilla, 2010, 2016; Gardner & Boix-Mansilla, 1994; Haynes & Association for Integrative Studies., 2002; Newell, 1990; Perkings, 1998), and previous studies that attempted to combine history and integrative learning methods (Duraisingh & Mansilla, 2007), were also analyzed.

C. Integrative Learning in History Education

The need to integrate history with other disciplines is an objective condition of history itself. As Burke argued, "*without the combination of history and theories (from other social disciplines), we are not likely to understand either the past or the present*" (Peter Burke, 1993). History, in its analysis, could not stand alone to explain a historical event chronologically. Burke reviewed the re-emergence of the fields of history and social science and explained their tentative convergence; he stated that history requires theories from other social and humanities disciplines to get through in-depth analysis. The interaction of historical concepts with other social and humanities disciplines has resulted in a variety of branch themes in historical science, such as anthropology history, economic history, social history, and others. Burke examined what models, methods, and concepts of the social sciences that historians could use; moreover, he also described how history has contributed to other social sciences based on a broad range of cultures and periods in which history has been used to create and validate social theories (Peter Burke, 1993).

In addition, Braudel's concept of the *longue durée* has revitalized the multiplicity of social sciences and their respective utilities in the analysis of historical phenomena. This concept specifically criticizes the emphasis on episodic and idiographic history (*l'histoire événementielle*) over the use of eternal concepts in the social sciences, which he referred to as *très longue durée*. He explicated the necessity of analyzing the *longue durée* (long, but not eternal), as well as what he called *la conjoncture*, the cyclical movements within the *longue durée* (Braudel, 2009; P. Burke, 1990). Braudel and some annals scholars were concerned about the cycle of history of some civilizations which they analyzed using the combination of history and social sciences theories. In line with this, Skocpol discussed how history influenced a long tradition of research rooted in sociology and provided a detailed discussion and comparison of three reiterative strategies to yield historical evidence and theoretical ideals of combined tolerance over others (Marshall & Skocpol, 1986). Therefore, based on the idea that history should be opulent by collaborating with other social sciences, an integrative learning concept can reinforce a broader construct of multidisciplinary learning which is naturally part of history because it utilizes various disciplines, theories, models, or concepts.

The central of this notion is the uniqueness of history as a framework on arranging history pedagogic which depends on historical sources and accepted patterns of historical explanations. Retz (2016) explained a long and various way of delivering history subject in the educational field had been coming from the philosophy of history. Though Retz (2016) did not agree that history is a distinct discipline with its own logic, he realized that the growth of interdisciplinary methods, theories, and approaches has revolved around the construction of multiple perspectives around historical narratives. Obviously, the relation of history pedagogic and the philosophy of history appeared as history is constructed from historians' efforts at understanding the past. This implies that students of history should learn to master cognitive skills based on how historians perform (Thorp & Persson, 2020). In addition, one of example how radically history could be integrated with different perspectives is shown by Swanson et al (2021), their works showed that integration of

historical approaches toward the ecological and socio-cultural perspectives could provide possibilities for better integrating insights from diverse disciplinary perspectives about nature sustainability, because its simultaneously addressing the urgent need of past ecological and socio-ecological pathways alongside ongoing dynamism. Therefore, based on the idea that history should be opulent by collaborating with various approaches and perspectives. Integrative learning concepts could reinforce a broader construct of multidisciplinary learning which is naturally part of history because it utilizes various disciplines' theories, models, or concepts.

Several scholars have defined an integrative learning approach in a quite similar way. For example, integrative learning is defined as a term for various learning activities that connect with various disciplines (Brown Leonard, 2012); a learning activity in which learners are asked to bridge several understandings in the curriculum and co-curriculum (Newell, 1990); an exploration of relationships with general curricula of education and majors (Huber & Hutchings, 2004). The importance of interdisciplinary approach in the higher education is to foster student's abilities to integrate learning over time and across courses in order to use integrative learning as an approach to linkage across disciplines. It also relates to the ability to analyze issues from several perspectives, compare the contrasts, critically analyze from various sources (information or data), deal with problems and propose related solutions in a broader context, develop critical arguments, and tolerate ambiguity and complexity (Haynes & Association for Integrative Studies., 2002; Klein, 2010). However, Klein (2005) urged that the complete unity of several disciplines is impossible. Nevertheless, he stipulated that an integrative approach in terms of "unifying," not "unified", which means the locus of integration, is on the process integration rather than content integration. Hence, in this context, the important shift is away from single structures or teaching methods and toward integrating the strengths of various disciplines into integrative learning. Conclusively, the discourse of integration generally urged a combination of knowledge and ways of thinking from two or more disciplines to improve cognitive thinking in ways that are not possible through only one discipline science.

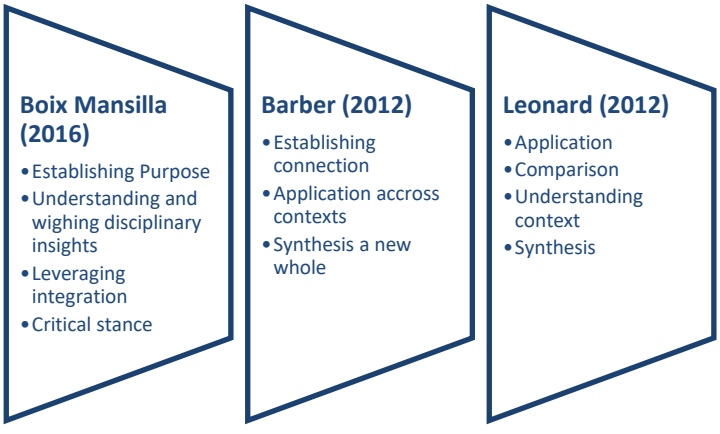

Figure 1 Cognitive hierarchy of interdisciplinary understanding (lowest to the highets)

Klein (2005, 2018) and Mansilla (2010) rooted back the idea of integration in Herbert Spencer's principles of psychology such as organismic psychology, Gestalt psychology, and the democratic model of education, as well as Alexis Bertrand's theory of integrated instruction. Though, they still doubted what the locus of integration. According to Klein, (2018) a practical interdisciplinarity is a holistic process that entails learning-by-doing and uses these experiences within and outside school. However, a bold step has been taken by Mansilla (2010), she concluded that pragmatic constructionism is the epistemological foundation for integrative learning and emphasized that the locus of integration is inquiry of advancing understanding instead acquiring or claiming true knowledge.

Nonetheless, some of literature which discussing about integrative learning described the primary construct of integrative learning is the emergence of an interdisciplinary understanding as a cognitive process. Mansilla (2005) defined construction of interdisciplinary understanding:

> "*The capacity to integrate knowledge and modes of thinking drawn from two or more disciplines to produce a cognitive advancement such as: explaining phenomenon, solving the problem, creating a product, or raising a new question* (Mansilla, 2005)"

She stated that when students encounter differences in disciplinary perspectives to invent a higher-order construction that moved from a single perspective and adopts a meta-perspective, they experienced a "*system of thought in reflective equilibrium*" which is a complex and dynamic set of connections and mental representations that embody insights and tensions across disciplines (Mansilla, 2016). The concept of *reflective equilibrium* is a balanced mental representation of a dynamic connections among various discipline, approaches, and perspectives.

In the quest of defining a framework to implement the integrative learning, it is important to explain how the form of integration processed. Leonard (2012), Barber (2012), and Mansilla (2016) have tried to explain how the interdisciplinary understanding and integrative learning approach enhanced the learner's meta-cognitive related to Bloom's Taxonomy (Bloom & Krathwohl, 1956). Leonard (2012) argued that integrative learning is the sequence of interconnected cognitive insights, ranging from the simplest to the most sophisticated cognitive processes. Furthermore, interconnected cognitive insights of integrative learning which she offered ranging from 1) *application*, student's activity in finding relevant coursework personally; 2) *comparison*, student's ability to compare the similarities and differences from various perspectives ; 3) *understanding context*, student's ability in considering context when sorting through conflicting perspectives; and 4) *synthesis*, the most complex form of integration and involves blending perspectives to create a new understanding. However, she was miscalculated that the application as the lowest cognitive process of integrative learning, because she failed to distinguish the term of application whether it is a kind of cognitive process or just an activity in choosing coursework.

On the other case, Barber (2012) also tried to fill the gap in technically measure categories of the integration of learning based on the cognitive complexity aligns with

Bloom's taxonomy and other prominent models of intellectual and personal development. He divided the complexity level of integration into three categories which are: 1) *establishing a connection*, an ability to finding a common thread between concepts or experiences that remain distinct and identifying similar elements; 2) *application across contexts*, an idea or skill learned which elaborated into diverse context; 3) *synthesis of a new whole*, an ability to enhance understanding and gain a new insight by combining various knowledge, method, and perspectives. Barber (2012) defined that integration of learning demonstrated by the abilities to connect, apply, and/or synthesize information coherently from diverse contexts and perspectives, so the learner could use new insights in multiple contexts. Though, Barber failed to assess the initial purpose or goal in setting up the integration, as the beginning phase and lowest cognitive process, it is important to establish a learning objective that could be pin-point to exploring related disciplines toward the learning purpose.

In this case, generally, educators view that thematic learning is an appropriate way of carrying out interdisciplinary integration and establishing the purpose and objective of learning. Integration could be implemented by preparing a theme linking some disciplines in which the theme has a function to help students focus their attention on particular problems, in-depth and comprehensively (Fogarty, 1991). However, Duraisingh & Mansilla (2007) have criticized the simplified theme-based approach in conducting history learning, they insist mostly on linking themes or phenomena from two or more disciplinary perspectives just connecting relations without taking any deep integration and achieving new understanding. But the theme, in this context, is still important to set up the purpose. In line with it, Lonning, DeFranco, & Weinland (1998) stated that a theme could provide a framework and organization of topics, concepts, or problems that guide the development and implementation of a series of interrelated disciplines or activities, cross-sectoral ideas, and broad perspectives.

Mansilla (2016) inspired by Edward Wilson's theory of *consilience* which principally admits a diversity of intellectual endeavors and proposes collaborating humanities and the sciences legitimately. Consilience theory proposed grants the humanities the right to articulate human and cultural constructs to be studied and entrust the biological sciences with the power to explain them. Then she examined history and art based on Maya Lin's *Boundaries* (2000) and proposed a way to integrate two different perspectives as an epistemological foundation of interdisciplinary learning. The cognitive integration that she proposed could be conducted through four steps including 1) *establishing purpose*, a study of interdisciplinary learning must consider how learners set their epistemic intention; 2) *understanding and weighing disciplinary insights*, this level of cognitive emphasize the abilities understand disciplinary contributions and weigh their role to construct such a system of thought in *reflective equilibrium*; 3) *leveraging integration*, leveraging integration arise when the system of thought in reflective equilibrium which in particular emerged as a form of preferred disciplinary integration; 4) *critical stance*, Mansilla argued that understanding is an endless and cyclical task as the conclusion of a topic could be

challenged by the context, insight, or experiences, so the learner should realize the limitations of our knowledge.

However, in the Interdisciplinary Epistemology Foundation, Boix Mansilla did not directly include synthesizing as one of interdisciplinary understanding. Even though, she has considered synthesizing and idiosyncratic features of interdisciplinary syntheses as the main reasons to explore what learning to synthesize stands. Moreover, many of her works have discussed the role of integration of knowledge and modes of thinking from various disciplines in promoting synthesizing a new understanding. Mansilla (2016) argued that synthesis is a fundamental human capacity and it has manifested early in life, for example when children engage in symbolic play, create artistic compositions, or learn the rules of a new game. This notion seems to bring us into an important consideration that synthesize is a form of integration. As the highest cognitive ability, synthesize from the integration of knowledge and modes of thinking in two or more disciplines as the way to searching for better understanding.

Based on the discourses of interdisciplinary understanding which have been discussed by Mansilla (2016), Barber (2012), and Leonard (2012). These notions could be merged into a more comprehensive framework of interdisciplinary understanding in the learner's realm. Above all, we consider that Boix Mansilla's (2016) epistemology foundation of interdisciplinary understanding was the almost complete framework in describing how the integration of learning is generated in the learner's cognitive realm, even though she has not included synthesizing as part of interdisciplinary understanding. Thus, to complement her theory, we consider adding synthesizing as the higher cognitive skill of interdisciplinary understanding.

However, still there was some debate about the form of integration. Based on the literature review on student development, learning and psychology, there is no clear description of how the form of integration is undertaken. This challenge is made more difficult by a lack of clarity about what integrative learning is and how it is taught and measured. Barber (2012) critically discussed the lack of detailed information about the ways in which learning is integrated, he is also concerned about an array of conceptualizations which has led to the problem in implementing the concept. Even though, he stated about practices of integration process (e.g., the requirement of multiple sources in the working of paper/project, taking an interdisciplinary course, or participating in a service-learning) may facilitate the central notion of integration.

Interdisciplinary synthesis, however, presents heightened cognitive demands and requires deliberate instruction. Even though still many debates on the form of pedagogical approach to integrative learning. Haynes & Association for Integrative Studies (2002) argued that interdisciplinary learning does not claim a unique set of pedagogies but rather reinforces students' comprehensive understanding to respond the complex problems and issues. In line with it, Klein (2005) added that there is no unique or single pedagogy for integrative interdisciplinary learning, she argued that interdisciplinary knowledge is a complex psychological and cognitive process that cannot be applied with just one approach. For example, how project-based learning (PjBL) offers a learning strategy that

situated student to elaborate the solution or artifact of a complex problem based various approaches (MacLeod & van der Veen, 2020). On the other side, Duraisingh & Mansilla (2007) have conducted a case study of interdisciplinary work through project-based learning, especially that they experimented it using an integration of art and historical learning. Also, they have outlined several ways in which students' historical understanding could be boosted by integrating arts into history classrooms. Furthermore, derived from Mansilla's work, they offered a practical assessment strategy of interdisciplinary learning (Mansilla, Duraisingh, Wolfe, & Haynes, 2009).

Obviously, interdisciplinary understanding is an integral part of the integrative learning which emerged from the integration process. Thus, we assumed that the empirical foundation of interdisciplinary understanding could be inherent in defining the way integrative learning is applied and it is important to construct a pedagogical framework based on the nature of the interdisciplinary understanding. Therefore, the author proposed revision of interdisciplinary understanding framework by adding the synthesis as one of the processes to established a holistic system of integration. Finally, the integrative learning process could be implemented through: 1) establishing purpose; 2) understanding and leveraging disciplinary insight; 3) leveraging integration; 4) critical stance or synthesizing.

1. Establishing Purpose

At this stage, the learner will be oriented towards a more substantial direction of learning objectives. The learning activity directed students to realize actual problems in society, which had relation to the history that they currently learn and it is important to avoid students from understanding history textually and chronologically. According to Barber, King, & Magolda (2013) and Magolda (2014) how to create a meaningful learning of interdisciplinary approach is by developing a frame of mind that allows students to put their knowledge in various perspectives; directing students to understand the sources of their beliefs and values; and establishing a sense of self that enables them to participate effectively in a variety of personal, occupational, and community contexts. Meaningful learning for students is fundamental in learning activities, and the process of meaning formulation depends on the instructional design. In this case, achieving learning outcomes requires a mindset shift from relying on authority to ways of making sense of one's experiences that reflect more complex meaning-making skills. Dwelling learning purposes would help students to know the pathway of the true value of the historical event. Because the achievement of higher learning outcomes involves complex meaning-making, students who adopt increasingly complex forms of meaning-making more quickly gain an advantage in learning.

One example of how meaningfulness is explored in learning is explained by Mansilla (2016) when he exemplifies how there is interdisciplinary understanding by exploring the meaningful values of Maya Lin's *Boundaries* as an interdisciplinary work which in the initial stage sought the reader to reflect about war and reconciliation of the Vietnam War. Monuments related to the memories of the history of the Vietnam War combined an

understanding of the past with space, symbolism, and learning materials that aroused the learners' historical interpretation. The monument's usage is to commemorate a memory and make past experiences a part of the present. Interdisciplinary learning must examine how learners' interest in structuring their ways of obtaining knowledge. For example, readers represent the memories to reflect on war and reconciliation, but other learning interests, such as understanding why conflict occurs, are ruled out. She argued that this kind of learning effort will be measured by the effectiveness of the stimulant in provoking thought rather than being an explanatory power of history because the essential lesson is how important to reconcile and spread love to everyone from the dark memory of the war.

2. Understanding and Leveraging Disciplinary Insight

In the next stage, the student tried to weigh each discipline's insights, learners begin to understand the contribution of each domain and consider its role as a whole to build a balanced, reflective way of thinking. Learners can take the form of theories, findings, models, methods, tools, techniques, models of typical thinking, applications, discourses, languages, examples, or explanations from a scientific discipline. In this phase related to Barber (2012) category of *establishing a connection*, where he defined student's activity to recognize a novel concept from two or more/disciplines in a common element, the experiences within the establishing connection were mostly in the realm of ideas. This notion has a similarity with Duraisingh & Mansilla (2007) efforts in triggering students' sense to weigh each discipline's insights and find a useful combination or connection among them.

Based on Maya Lin's *Boundaries,* Mansilla (2016) explained that the Vietnam War's memory-challenged her in identifying their perceptions of this historical memory and invited the readers to build historical stories that originate directly from the literal interpretation of primary sources. This is also an option for learners who must decide on past representations that will illustrate the monument, in contrast, history records are limited by historian's choice of explanation. Art and architecture also provide important challenges in monument design. Both called the learners to imagine a detailed version of the monument in their mind; consider materials and techniques as provocative symbolism. They need to overcome rooted misunderstandings such as believing that the quality of art depends only on its decorativeness or that an artist's interest is the last thing in work. She must work with disciplinary ideas, weigh them against her present understanding, and assess their role in informing the whole.

3. Leveraging Integration

At this stage, students are directed to unite each interdisciplinary perspective in a comprehensive understanding where integrative learning produces a system of thought in reflective equilibrium, which is usually organized in a combination of preferred disciplines. The student should recognize the chosen analysis unit sometimes has a different domain or different validation standards; however, it is a challenge to find each discipline's strength which is complementary to the other. In line with it, Barber (2012) defined the

activity in leveraging integration as the most concrete experience which focuses on application. In his category, *application across contexts,* the mobility of knowledge across contexts is seen as a key link to the transfer of learning references and how students take an active role in this mobility.

In Maya Lin's work, Mansilla (2016) assessed that the past has been reframed in the form of a visual metaphor that drives the aesthetic design. The dark memories of the Vietnam War on the individual and social minds of American society are scars. Nevertheless, when learning is to create an aesthetic, metaphors frame reality in different ways. The interdisciplinary synthesis of the Vietnam War history becomes a scar that requires learners to understand its contents, a metaphor that stands between these three forces: historical accuracy, visual beauty, and the power to heal. By choosing visual metaphors to represent the past, students can develop a more sophisticated understanding of how history is interpreted differently. A reminder that meaning is not a property of the event itself. It is due to that event, development, or circumstance. Events can be considered important for many reasons. For example, its uniqueness, its influence on subsequent events, or its resonance with contemporary issues. Meaningful considerations are usually influenced by philosophical assumptions about how history "works". This is regardless of whether influential individuals or larger social processes are typically seen as factors influencing historical change.

In other cases, the spirit of integration across disciplines in History has been brought by the Annalese School. Their works contributed to and enriched the study of history by utilizing other social sciences such as economics, sociology, demography, social psychology that produces what they call "total history" rather than traditional historiography which tends to dwell on politics, institutions, or diplomatic relationships (Church, 1976). Thus, Annalese work has shown that history can uncover a broader aspect of a particular community/entity including social and economic movements, trends, and cycles. and psychology as a contextual factor that, they say, has a significant influence on people. activities. life than traditional stories tend to explore around events and main characters (great man history).

4. Critical Stance or synthesizing

A critical stance is seen as a fundamental notion in historical thinking. Basically, the construction of historical narratives is susceptible to subjectivity and bias which could deviation from the original fact. So, it is important to critically deconstruct the idea imply in a historical narrative. In this case, history and the teaching of history should not be based on certain historical stories, but on the processes and methods by which these historical stories are constructed (Thorp & Person, 2020; Wineburg, 1994). Therefore, history teachers should encourage students to develop the thematic skills necessary to critically review historical sources and reconstruct stories from them. Furthermore, reading a historical narrative requires disciplinary insight into the history, considering how the reconstruction and construction of information inside the historiography, and how the idea is disseminated.

Previously, we have proposed that to complement Boix Mansilla's epistemology foundation of interdisciplinary understanding, "synthesizing" should be considered as one of the cognitive abilities which reflect individual mastery of interdisciplinarity. In line with it, Leonard (2007) argued that the linking process characteristic of integrative learning is more than a pairing of ideas, he added that to be integrative, the connection must blend and synthesize perspectives. In this phase, students are invited to realize a partial understanding of discipline has a weakness in capturing the complexity of human life. Also, students recognize that their ability to interpret is limited and requires a combination with other people or other knowledge. Social problems or phenomenon cannot be generalized easily because it sometimes applies contextually. Theory only helps to give consideration, so experience and application are needed to confirm all knowledge they gain. Thus, students continue to renew their understanding within different disciplines, as the critical stance makes students not easily satisfied with what they had gotten.

Mansilla (2016) described the relationship between critical thinking and metacognition in the final stage of integrative learning. Students also realize that they have limitations in their interpretation. Such restrictions often function as a path to further understanding, setting new goals, new disciplinary insights, integration, and building new mind-sets. Understanding is an endless task and a cycle. It concluded that constructionist epistemology takes power not from attaining perfect truths but from acknowledging our knowledge's limitations. In addition, Ivanitskaya, Clark, Montgomery, & Primeau (2002) argue that with repeated exposure to interdisciplinary thinking, learners develop more advanced epistemological beliefs, enhanced critical thinking abilities, and metaphysical skills. perceive and understand the relationship between perspectives from different disciplines.

Thus, interdisciplinary understanding can be viewed as a "reflective equilibrium system of thought", a complex and dynamic set of mental affinity and representations that embody ideas. and tension between subjects, demonstrating an improvement in prior confidence and remaining open at the exam. Many argue that improving critical thinking and effective reasoning (as well as other outcomes) goes beyond skills to include fundamental changes in how learners think about the nature of knowledge and its role in knowledge construction (Barber, King and Magolda 2013; Magolda 2014). Thus, academic and personal experiences that promote critical thinking and effective reasoning can be experiences that also promote complex forms of meaning formation.

5. Some Considerations to Implementing the Interdisciplinary Approach

Even though, some problem in implementing the concept of integrative learning have been discussed in previous sections such as the locus of integration and the array of conceptualizations which has led to the problem in implementing the concept. MacLeod (2018) discussed a more details explanation based on an empirical experience. According to MacLeod the "Cognitive obstacles" refer to conceptual and methodological challenges in integrating various concepts, methods, epistemic standards, and technologies of their respective domains. These challenges include the demarcation of domain specific to the

outsiders, conflicting epistemic values, large conceptual and methodological divides and unstructured task environments. However, in drawing his argument MacLeod (2018) used some cases which mostly from the science, and he is not exploring interaction that involving history or historical approaches. Still, his finding could be a consideration about problem or obstacle in integrating various disciplines. Clearly, his finding tells us that the problem stems from the cross-section of fields that correspond to the domain structure of scientific practice, especially the complex interdependencies between methods, techniques, and methods. technology, cognitive values, and cognitive structures whose practice often depends on functional science. However, it is different case if obtaining history as a component of integration, because the nature of history discipline has dependency on other discipline. Although history has a certain philosophical and methodological approaches, history mainly focus on human and its dimension of the past. But in reconstructing the past, it strongly rely to multidisciplinary approach.

D. Conclusion

Collaboration of history and other social science theories would create a comprehensive and in-depth understanding of history. Integration of a multidiscipline explanatory framework in history education is required to give a comprehensive explanation of history. In this case, multidisciplinary perspectives which are naturally part of history have been reinforced by a broader construct of integrative learning, because it seeks various scientific disciplines to enhance students' high-order thinking skills. Integrative learning constructed an interdisciplinary understanding that combines knowledge, model, and theory from two or more disciplines to improve metacognition in ways that are not possible through only one discipline of science.

Integrative learning is the emergence of an interdisciplinary understanding that combines knowledge and ways of thinking from two or more disciplines to improve cognitive thinking in ways that are not possible through only one discipline of science. In history education, the integrative learning approach could be delivered through 1) *establishing* purpose where the learner is invited to contemplate the reality compared to various life lessons of historical events. 2) *Understanding and leveraging disciplinary insight*, in this stage learner tries to weigh each discipline's insights and understand the contribution of each domain as well as considers its role as a whole to build a balanced, reflective way of thinking. 3) *Leveraging integration*, interdisciplinary cognition through integrative learning produces a system of thought in reflective equilibrium, which is usually organized in a combination of preferred disciplines. 4) *Critical stance*, the learners contemplated that a partial perspective is limited to the breakdown of the complexity of human life. As they critically construct its incapability to find the perfect truth, instead the learner should be widely open to various possibilities in using different perspectives.

BIBLIOGRAPHY

Ahmad, T. A., Sodiq, I., & Suryadi, A. (2014). Kendala-Kendala Guru dalam Pembelajaran Sejarah Kontroversial di SMA Negeri Kota Semarang. *Paramita: Historical Studies Journal*. https://doi.org/10.15294/paramita.v24i2.3128

Bain, R. B. (2006). Rounding Up Unusual Suspects: Facing the Authority Hidden In the History Classroom. *Teachers College Record*. https://doi.org/10.1111/j.1467-9620.2006.00775.x

Barber, J. P. (2012). Integration of Learning: A Grounded Theory Analysis of College Students' Learning. *American Educational Research Journal*. https://doi.org/10.3102/0002831212437854

Barber, J. P., King, P. M., & Baxter Magolda, M. B. (2013). Long Strides on the Journey toward Self-Authorship: Substantial Developmental Shifts in College Students' Meaning Making. *The Journal of Higher Education*, *84*(6), 866–896. https://doi.org/10.1080/00221546.2013.11777313

Bloom, B. S., & Krathwohl, D. R. (1956). Taxonomy of Educational Objectives: The Classification of Educational Goals. In *Handbook I: Cognitive Domain.*

Braudel, F. (2009). History and The Social Sciences: The Longue Durée. In *Review*. https://doi.org/10.15388/lis.2020.45.10

Brush, T., & Saye, J. (2014). An Instructional Model to Support Problem-Based Historical Inquiry: The Persistent Issues in History Network. *Interdisciplinary Journal of Problem-Based Learning*. https://doi.org/10.7771/1541-5015.1409

Bryan, K. S., & Klein, J. T. (1998). Crossing Boundaries: Knowledge, Disciplinarities, and Interdisciplinarities. *History of Education Quarterly*. https://doi.org/10.2307/370004

Burke, P. (1990a). The French historical revolution. The Annales School, 1929-89. *The French Historical Revolution. The Annales School, 1929-89*. https://doi.org/10.2307/2164842

Burke, P. (1990b). The French historical revolution. The Annales School, 1929-89. *The French Historical Revolution. The Annales School, 1929-89*. https://doi.org/10.2307/2164842

Burke, P. (1993). History and Social Theory. In *Cornell paperbacks*. https://doi.org/10.2307/2076450

Church, W. F. (1976). Emmanuel Le Roy Ladurie. The Peasants of Languedoc. Tr. with an Introduction by John Day. Urbana: University of Illinois Press, 1974. 370 pp. $16. *Renaissance Quarterly*, *29*(2), 238–242. https://doi.org/10.2307/2860480

Denyer, D., & Tranfield, D. (2009). Producing a Systematic Review. In *The SAGE Handbook of Organizational Research Methods*.

Duraisingh, L. D., & Mansilla, V. B. (2007). Interdisciplinary forays within the history classroom: how the visual arts can enhance (or hinder) historical understanding. *Teaching History*.

Fink, C., Dosse, F., & Conroy, P. V. (1996). New History in France: The Triumph of the Annales. *The American Historical Review*. https://doi.org/10.2307/2169725

Gardner, H., & Boix-Mansilla, V. (1994). Teaching for Understanding: Within and across the Disciplines. *Educational Leadership*. https://doi.org/Article

Harsgor, M. (1978). Total History: The Annales School. *Journal of Contemporary History*. https://doi.org/10.1177/002200947801300101

Haynes, C., & Association for Integrative Studies. (2002). Innovations in interdisciplinary teaching. In *American Council on Education/Oryx Press series on higher education*.

Huber, M. T., Hutchings, P., & Huber, Mary-Taylor; Hutchings, P. (2004). Integrative Learning: mapping the terrain. *Association of American Colleges and Universities and the Carnegie Foundation for the Advancement of Teaching*. https://doi.org/10.3928/00220124-20100624-04

Hunt, L. (1986). French History in the Last Twenty Years: The Rise and Fall of the Annales Paradigm. *Journal of Contemporary History*. https://doi.org/10.1177/002200948602100205

Hunter, P. (2018). Problematised History Pedagogy as Action Research in Preservice Secondary Teacher Education. *Educational Action Research*. https://doi.org/10.1080/09650792.2018.1485590

Ivanitskaya, L., Clark, D., Montgomery, G., & Primeau, R. (2002). Interdisciplinary Learning: Process and Outcomes. In *Innovative Higher Education*. https://doi.org/10.1023/A:1021105309984

Johnson, C. S. (ed). (2005). Integrative Learning. *Peer Review*. https://doi.org/10.3928/00220124-20100624-04

Klein, J. T. (2005). Integrative Learning and Interdisciplinary Studies. *Peer Review*. https://doi.org/http://dx.doi.org/10.1108/17506200710779521

Klein, J. T. (2010). A Taxonomy of Interdisciplinarity. In *The Oxford Handbook of Interdisciplinarity*. https://doi.org/10.1093/acprof:oso/9780199266302.003.0005

Klein, J. T. (2018). Learning in transdisciplinary collaborations: A conceptual vocabulary. In *Transdisciplinary Theory, Practice and Education: The Art of Collaborative Research and Collective Learning*. https://doi.org/10.1007/978-3-319-93743-4_2

Leonard, J. B. (2007). *Integrative Learning As a Developmental*.

Leonard, J. B. (2012). Integrative Learning: a grounded theory. *Dean Student Academic Affairs, Advising, and Retention George Mason University*. https://doi.org/10.1002/j.2168-9830.2007.tb00936.x

Lonning, R. a., DeFranco, T. C., & Weinland, T. P. (1998). Development of Theme-Based, Interdisciplinary, Integrated Curriculum: A Theoretical Model. *School Science and Mathematics*. https://doi.org/10.1111/j.1949-8594.1998.tb17426.x

MacLeod, M. (2018). What Makes Interdisciplinarity Difficult? Some Consequences of Domain Specificity in Interdisciplinary Practice. *Synthese*, *195*(2), 697–720. https://doi.org/10.1007/s11229-016-1236-4

MacLeod, M., & van der Veen, J. T. (2020). Scaffolding Interdisciplinary Project-Based Learning: a Case Study. *European Journal of Engineering Education*, *45*(3), 363–377. https://doi.org/10.1080/03043797.2019.1646210

Magolda, M. B. (2014). Research Article. *New Directions for Higher Education*, *2014*(166), 25–33. https://doi.org/10.1002/he.20092

Mansilla, V. B. (2005). Assessing Student Work at Disciplinary Crossroads. *Change: The Magazine of Higher Learning*. https://doi.org/10.3200/CHNG.37.1.14-21

Mansilla, V. B. (2008). Integrative Learning: *PeerReview*. https://doi.org/10.1002/j.2168-9830.2007.tb00936.x

Mansilla, V. B. (2010). Learning to synthesize: A cognitive-epistemological foundation for interdisciplinary learning. In *The handbook of interdisciplinarity*.

Mansilla, V. B. (2016). Interdisciplinary Learning: A cognitive-Epistemological Foundation. In *Oxford Handbook of Interdisciplinarity*. https://doi.org/10.1093/oxfordhb/9780198733522.013.22

Mansilla, V. B., & Duraisingh, E. D. (2007). Targeted Assessment of Students' Interdisciplinary Work: An Empirically Grounded Framework Proposed. *The Journal of Higher Education*. https://doi.org/10.1353/jhe.2007.0008

Mansilla, V. B., Duraisingh, E. D., Wolfe, C, R., & Haynes, C. (2009). Targeted Assessment Rubric: An Empirically Grounded Rubric for Interdisciplinary Writing. *The Journal of Higher Education*. https://doi.org/10.1353/jhe.0.0044

Marshall, G., & Skocpol, T. (1986). Vision and Method in Historical Sociology. *The British Journal of Sociology*. https://doi.org/10.2307/590363

Massey, D. D. (2015). *Reading History: Moving from Memorizing Facts to Critical Thinking*. https://doi.org/10.1007/978-3-319-14735-2_2

Moher, D., Shamseer, L., Clarke, M., Ghersi, D., Liberati, A., Petticrew, M., Shekelle, P., Stewart, L. A., Estarli, M., Barrera, E. S. A., Martínez-Rodríguez, R., Baladia, E., Agüero, S. D., Camacho, S., Buhring, K., Herrero-López, A., Gil-González, D. M., Altman, D. G., Booth, A., … Whitlock, E. (2016). Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols (PRISMA-P) 2015 statement. *Revista Espanola de Nutricion Humana y Dietetica*. https://doi.org/10.1186/2046-4053-4-1

Newell, W. H. (1990). Interdisciplinary Curriculum Development. *Issues in Integrative Studies*.

Pati, D., & Lorusso, L. N. (2018). How to Write a Systematic Review of the Literature. *Health Environments Research and Design Journal*. https://doi.org/10.1177/1937586717747384

Perkings, D. (1998). What is Understanding? In *Teaching for understanding: linking research with practice*.

Retz, T. (2016). At the Interface: Academic History, School History and The Philosophy of History. *Journal of Curriculum Studies*. https://doi.org/10.1080/00220272.2015.1114151

Saye, J. W., & Brush, T. (2002). Scaffolding Critical Reasoning about History and Social Issues in Multimedia-Supported Learning Environments. *Educational Technology Research and Development*. https://doi.org/10.1007/BF02505026

Saye, J. W., & Brush, T. (2007). Using Technology-Enhanced Learning Environments to Support Problem-based Historical Inquiry in Secondary School Classrooms. *Theory and Research in Social Education*. https://doi.org/10.1080/00933104.2007.10473333

Shemilt, D. (2018). Assessment of Learning in History Education: Past, Present, and Possible Futures. In *The Wiley International Handbook of History Teaching and Learning*. https://doi.org/10.1002/9781119100812.ch17

Snyder, H. (2019). Literature Review as a Research Methodology: An Overview and Guidelines. *Journal of Business Research*. https://doi.org/10.1016/j.jbusres.2019.07.039

Subakti. (2010). Paradigma Pembelajaran Sejarah Berbasis Konstruktivisme. *Journal Seri Pengetahuan Dan Pengajaran Sejarah*.

Sutimin, L. A., Sariyatun, S., & Abidin, N. F. (2018). The Development of Deconstructive Learning History Model to Promote the Higher Order Thinking Skill of University Students. *New Educational Review*.

Swanson, H. A., Svenning, J. C., Saxena, A., Muscarella, R., Franklin, J., Garbelotto, M., Mathews, A. S., Saito, O., Schnitzler, A. E., Serra-Diaz, J. M., & Tsing, A. L. (2021). History as Grounds for Interdisciplinarity: Promoting Sustainable Woodlands via an Integrative Ecological and Socio-Cultural Perspective. In *One Earth* (Vol. 4, Issue 2, pp. 226–237). Cell Press. https://doi.org/10.1016/j.oneear.2021.01.006

Thorp, R., & Persson, A. (2020). On Historical Thinking and The History Educational Challenge. *Educational Philosophy and Theory*. https://doi.org/10.1080/00131857.2020.1712550

Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review. In *British Journal of Management*. https://doi.org/10.1111/1467-8551.00375

van Hover, S., Hicks, D., & Irwin, W. (2007). Beginning Teachers Thinking Historically?: negotiating the Context of Virginia's High-Stakes Tests. *The International Journal of Social Education*.

Wineburg, S. (1999). Historical Thinking and Other Unnatural Acts. In *Phi Delta Kappan*.

Wong, G., Greenhalgh, T., Westhorp, G., Buckingham, J., & Pawson, R. (2013). Meta-Narrative Reviews. *Journal of Advanced Nursing*. https://doi.org/10.1111/jan.12092