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Towards College Health 2.0

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Towards College Health 2.0

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Abstract

This article conceptualizes a curriculum and evaluative mapping framework designed to advance the discussion and operationalization of a complex construct: A media literacy education / information literacy education / health education triad. A review of the literature and previous theoretical frameworks, standards, and assessments provide support for the proposed pathways the model illustrates.

Health Education, Media and Information Literacy (HE MAIL): A Conceptual Model for Higher Education acknowledges our students' power and participation in media, and supports their wellness. Emphasizing the interrelationship of research-based curriculum design and pedagogy, the conceptual model is organized into six primary components: (a) Backward Design for Curriculum Development; b) Learners (educators and students); (c) Health education goal, standards, performance indicators and characteristics; (d) Media literacy education, skills, key questions/core concepts, and criteria; (e) Information literacy, standards and performance indicators; and (f) Formative assessment.

The *HE MAIL* Conceptual Model imagines improving young adult's' health and teaching them to actively inquire, and think critically about the health messages they receive and create. It is intended that the model's perspectives and fluidity will

encourage educators to design or redesign interdisciplinary lessons, assignments, courses or curriculum connecting media and information literacy with health education. Together with its review of literature, HE MAIL provides insights into successful practices for improving wellness by integrating health content knowledge with essential 21st century literacies.

Introduction

Today, traditional college students are ‘digital natives’ who never knew a world without the Internet, and ‘social natives’; “enthusiastic adopters of new platforms that older Millennials and Gen Xer’s are slower to discover. ‘Social natives’ do more than set trends. They have different ways of thinking, consuming information, and working together... [and] are comfortable shifting seamlessly among various social networks and socially-enabled mobile apps” (Foulger, 2014, p. 1).

As they contemplate and develop health-related behaviors, they also act as autonomous PROSUMERS (producers and consumers of information) who can access and disseminate content in Web 2.0 domains without the regulatory controls of traditional filters and gatekeepers... [such] end-users now need greater critical thinking capacities...to decide what is valid and truthful, to incorporate multiple perspectives and voices into expanding worldviews... exhibiting ethical behavior in what may be said or posted online... (MediaSmarts, 2015, p. 1)

This constant outreach to a global audience through social media affords means to affect, persuade, inundate, and potentially overwhelm our students. For example,

Cloud-based operating system, Domo (2018) reported that within only one minute, worldwide media usage on the internet (as of June 2018) included 12, 986, 111 text messages; 3, 788, 140 Google searches; 2, 083, 333 Snaps shared by Snapchat users; and 473,400 Tweets sent by Twitter users. These data corroborate Goodman's (2014) claim "we are no longer just consumers of media, but content creators and distributors, as well as editors, and opinion makers."

Moreover, health messages generated through seemingly infinite sources and channels may feature biased, incomplete, and incorrect information. It is therefore critical to identify media and information literacy approaches that have been associated with students learning to become critical thinkers and seekers of health information (National Action Plan to Improve Health Literacy, 2010). The *Plan* also calls for "development and implementation of health literacy interventions on the basis of theories and models, drawing from such related disciplines as communication and education..." (44). As they learn to manage their health, our students must also learn to efficiently interpret health-related information, and make informed behavioral decisions accordingly, and in concert with the speed with which health information evolves. This can be accomplished through a triad; a confluence of media literacy education, information literacy education, and health education.

Media literacy education to promote health among young adults engages them in critically assessing media messages that could promote unsafe behaviors and influence their health perceptions and practices. As counterpart, information literacy education engages students in determining "when information is needed, where to find it, and how to evaluate, use and communicate it in an ethical manner" (Chartered Institute of Library

and Information Professionals, 2015: 1). It is important to recognize that young adults may believe themselves to be educated about and at low risk for health problems, or may feel fatalistic about their health, thereby precluding them from seeking health information (Myrick, et al., 2016). This tenet of information literacy; *knowing when* to seek information profoundly influences health education; the final piece of the triad.

Health education is comprised of learning experiences “designed to help individuals and communities improve their health, by increasing their knowledge or influencing their attitudes” (WHO, 2016: 1). The importance of health education cannot be overstated given its role in in guiding students towards enhancing and maintaining their health, preventing diseases, and reducing risky behaviors. In fact, The National Action Plan to Improve Health Literacy (2010) recommended requiring annual coursework in health education for all postsecondary school students and including the National Health Education Standards in curriculum reform initiatives.

Need for a Comprehensive Conceptual Model

Although abundant research has focused on the purposes and value of media and information literacy education and health education, and has associated various standards and dispositions as will be discussed herein, the literature has been limited in one important respect. Absent is a comprehensive conceptual model to intersect media literacy education and information literacy education with health education. Not only is a gap in the literature apparent from a student-learning perspective, but Jolls (2016) noted that educators too, require pedagogical guidance.

Before teachers can teach media literacy they must understand.

Because a media literacy approach has been outside the education mainstream, there has been little systematic exploration of how to teach media literacy effectively either in graduate schools of education or in school districts (70).

From a student-learning perspective, Myrick et al. (2016) found young adults use the Internet as a first resource to gather information and to gauge if they needed to see a medical professional. Students' motivations for seeking information were:

because a health topic is perceived as relevant (especially if it affects themselves, but also those close to them); to determine one's risk for a health threat; because various emotional states (e.g. anxiety, embarrassment, curiosity) motivated them to find more information... [and] because they believe health and wellbeing to be core personal values (216).

Students 'foraged' primarily for information that was relevant, be it from an established source of health information...on comment boards or blogs (216-217).

Purpose

This work draws from current thinking in college health education, media literacy education, and information literacy education, and proposes an organizing framework positioning these disciplines in relation to one another. By visualizing the interplay of these disciplines in a conceptual framework, this manuscript provides an analytical tool useful for designing/revising curriculum, and teaching and learning practices. With its ultimate goal to improve students' wellness by enhancing their health

knowledge, status, practices and behaviors, this confluence of the three disciplines acknowledges the criticality of teaching students to actively inquire and think critically about the health information they receive and create.

The manuscript therefore reviews the literature with particular emphasis on identified needs and successful practices to achieve this goal, and introduces HE MAIL; a conceptual framework for higher education. Previous theoretical frameworks, standards, and protocols supporting and inspiring the proposed pathways HE MAIL illustrates, are also discussed.

How then, can we conceptualize a media and information literacy education model that acknowledges our students' power and participation in media, and supports the purposes of health education? This article reviews the literature and introduces HE MAIL; a curriculum and evaluative mapping framework designed to advance the discussion and operationalization of this complex construct.

Figure 1: *Health Education, Media and Information Literacy (HE MAIL): A Conceptual Model for Higher Education* can also guide development of interventions to improve the media literacy education/information literacy education/health education triad. Previous theoretical frameworks, standards, and assessments provide support for the proposed pathways HE MAIL illustrates.

With an ultimate goal to improve health by enhancing health knowledge, status, practices and behaviors, this confluence recognizes the criticality of teaching our digital and social natives to actively inquire and think critically about the messages they receive and create. The model is explained following a brief discussion of media and information literacies supporting health education.

Theoretical Framework

It is appropriate to consider Social Cognitive Theory (SCT) as the central explanatory philosophy in which to place the intersect of health education, media literacy education and information literacy education. For example, SCT asserts that human behavior is influenced by the dynamic interplay of personal factors, behavior, and environmental influences. It postulates a “causal structure in which self-efficacy beliefs operate in concert with cognized goals, outcome expectations, and perceived environmental impediments and facilitators in the regulation of human motivation, action, and well-being” (Bandura, 1998, p. 2). Research guided by SCT has “added to our understanding of how cognitive and social factors can profoundly affect physical and emotional well-being as well as the self-regulation of health habits” (Bandura, 1998, p. 2). So too, does the proliferation of information from media affect our students’ well-being and self-regulation.

As key socializing agents, media wield prominent and pervasive influence, and vicarious learning. Media literacy education and information literacy education ascribe skeptical decision-making processes, and the effective use and interpretation of sources. In turn, Social Cognitive Theory offers a theoretical basis for understanding how personal factors, behavior, and the environment influence “what receives attention, encoding information, constructing reality, and rehearsing and performing different forms of behavior” (Austin, Kallman, Kistler, 2017, p. 67).

Methodology

A review of the literature was conducted by searching databases including SAGE Premier, ScienceDirect, EBSCO, and Access Science, with emphasis on the key terms “health education,” “media literacy,” “media literacy education,” “information literacy,” and “information

literacy education.” In addition to review of vetted research, publications describing standards of practice in health education and health promotion, trends, interventions, and conceptual frameworks addressing the credibility, quality, risks, and benefits of health information were reviewed. Further resource review included essential 21st century literacies, ‘Backward Design,’ and assessment. Bibliographies and additional searches were conducted to progressively identify relevant sources. Subsequently, close reading of 142 works led to selection and analysis of 38 empirical and conceptual manuscripts as the final corpus for the narrative review.

Guided by core concepts derived from these documents, the next iterative process was to visualize, describe, and then conceptualize the relationships among the three disciplines, and six primary components that inform them: (a) Backward Design for Curriculum Development; b) Learners (health educators/curriculum designers and students); (c) Health education goal, standards, performance indicators and characteristics; (d) Media literacy education, skills, key questions/core concepts, and criteria; (e) Information literacy, standards and performance indicators; (f) Formative assessment. Visual methods (Clarkson, 2015) were utilized to design the framework. Specifically, *Hierarchy*, *Grouping* and *Sequence* help the reader quickly understand how the literature review concepts relate to each other.

Results and Discussion

The proposed conceptual framework depicts important and new connections and further advances a “healthward enterprise; an ambition for lifelong personal health promotion” (Hansen, Shneyderman, and Belcastro, 2015, p. 281). Not only is the framework intended to adapt to the reader’s needs, but the bold face sequence arrows

show that the integrated curriculum is a continuous cycle or loop of planning, facilitating, practicing, and assessing learning. This is of course, the underpinning of effective curriculum design.

Media Literacy Supporting Health Education

In recent decades, health professionals have increasingly recognized that media greatly influence young adult's health, and have used numerous strategies to address its effects, including regulating media content. However, media literacy education has emerged in the last 20 years as a promising alternative to such censorship.

Rather than attempting to protect youth from potentially harmful media messages, media education to promote health engages them in a critical examination of media messages that influence their perceptions and practices. It is designed to give youth the critical thinking skills necessary to ameliorate the influence of these messages and make healthy choices. (Bergsmal and Carney, 2008: 522)

A number of respected organizations including the American Academy of Pediatrics, the Office of National Drug Control Policy, and the Centers for Disease Control have endorsed media literacy as an effective health education strategy (Bergsmal and Carney, 2008; Gerafe, et al., 2015), as have media originations such the Center for Media Literacy, the Association for Media Literacy, the National Association for Media Literacy Education, the Consortium for Media Literacy, and MediaSmarts.

The National Association for Media Literacy Education (2007a) defined media literacy as the ability to access, analyze, evaluate, create, and act using all forms of

communication. Interdisciplinary by nature, it is the inevitable, realistic response to our complex, dynamic electronic and communication environment. Through media literacy education, we then “guide individuals towards developing inquiry habits and skills of expression necessary to be critical thinkers, effective communicators and active citizens in today’s world” (NAMLE, 2007a: 1).

Jolls (2015) contended that media literacy skills are “constants...central tools through which to contextualize, acquire, and apply content knowledge” (68) such as health education. “Having media literacy skills, especially being able to use a consistent process of inquiry that is internalized, enhances the ability to communicate and to share ideas through a common vocabulary that transcends subject areas as well as geographic boundaries” (68).

Jenkins (2006) identified competencies necessary for new media literacy skills including “Appropriation: The ability to meaningfully sample and remix media content...Collective Intelligence: The ability to pool knowledge and compare notes with others toward a common goal...Judgment: The ability to evaluate the reliability and credibility of different information sources” (Jenkins, 2006: 56).

Noting that media literacy education began in the era of one-way mass media and has evolved to embrace current multidirectional new media, The Aspen Task Force on Learning and the Internet sought to understand how young people learn today and to “optimize learning and innovation within a trusted environment,” (Aspen, 2014: 15), contending:

All learners should have the literacies necessary to utilize media as well as safeguard themselves in the digital age...The basic skills are media literacies, digital literacies and social-emotional literacies, and are necessary to learn through multiple media confidently, effectively and safely...(Aspen, 2014: 21)

Jolls (2014) noted “Media literacy skills must be valued, articulated, and taught systematically in ways that are consistent, replicable, measurable, and scalable globally” (1). Canadian-based MediaSmarts Centre for Digital and Media Literacy further explained “digital literacy enables individuals to understand how digital media content and applications can reflect, shape, enhance or manipulate our perceptions, beliefs and feelings” (2015: 5). This capacity also prepares students with information management skills for finding, evaluating and effectively using information” (2015: 5).

The dispositions and abilities required by traditional models of print literacy no longer capture the range of skills needed to be literate.

A well-rounded digital literacy incorporates print literacy...

technical know-how ...as well as many “soft skills” such as critical thinking and ethical behavior... Education systems around the

world are responding to new challenges posed in the digital era by

putting considerable emphasis on the development of digital

literacy capacities, competencies, and comportments.

(MediaSmarts, 2015: 1)

The Aspen Task Force on Learning and the Internet (2014) further defined digital, media, and social-emotional literacies as “digital age literacies” (68). Media

literacy was associated with searching, producing and consuming; digital literacy was associated with fluency in the use and security of interactive digital tools and searchable networks, and social-emotional literacy with skills similar to emotional intelligence and responsible decision-making. Jolls (2016) noted media literacy education is active and participatory, draws on active learning methodologies and encourages students to take responsibility for their learning. Each is also necessary health education strategy towards enhancing health knowledge, status, practice and behaviors.

Information Literacy Supporting Health Education

With the proliferation of information resources and technological advances, information literacy is also increasingly important; enabling learners to master content and extend their investigations, become more self-directed, and assume greater control over their own learning (Association of College and Research Libraries, 2010). In 2016, the ACRL offered a renewed vision of information literacy:

Information literacy is the set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning (1).

As with media literacy education, information literacy education is interdisciplinary by nature, common to all levels of education, and essential for students and educators. In higher education information literacy is relevant to... evaluating, managing, and using information. Students have a greater role and responsibility in creating new knowledge,

in understanding the contours and the changing dynamics of the world of information, and in using information, data, and scholarship ethically. Teaching faculty have a greater responsibility in designing curricula and assignments that foster enhanced engagement with the core ideas about information and scholarship within their disciplines.

(ACRL, 2016, p. 1)

“To be information literate, one must understand: When information is needed; the resources available; how to find information; the need to evaluate results; how to work with or exploit results; ethics and responsibility of use; how to communicate or share findings; and how to manage findings” (Chartered Institute of Library and Informational Professionals, 2015, p 1). “This is also important for determining optimum mediums for getting health information to young adults...and for health educators hoping to teach students about media and health...” (Myrick et al., 2016, p. 216).

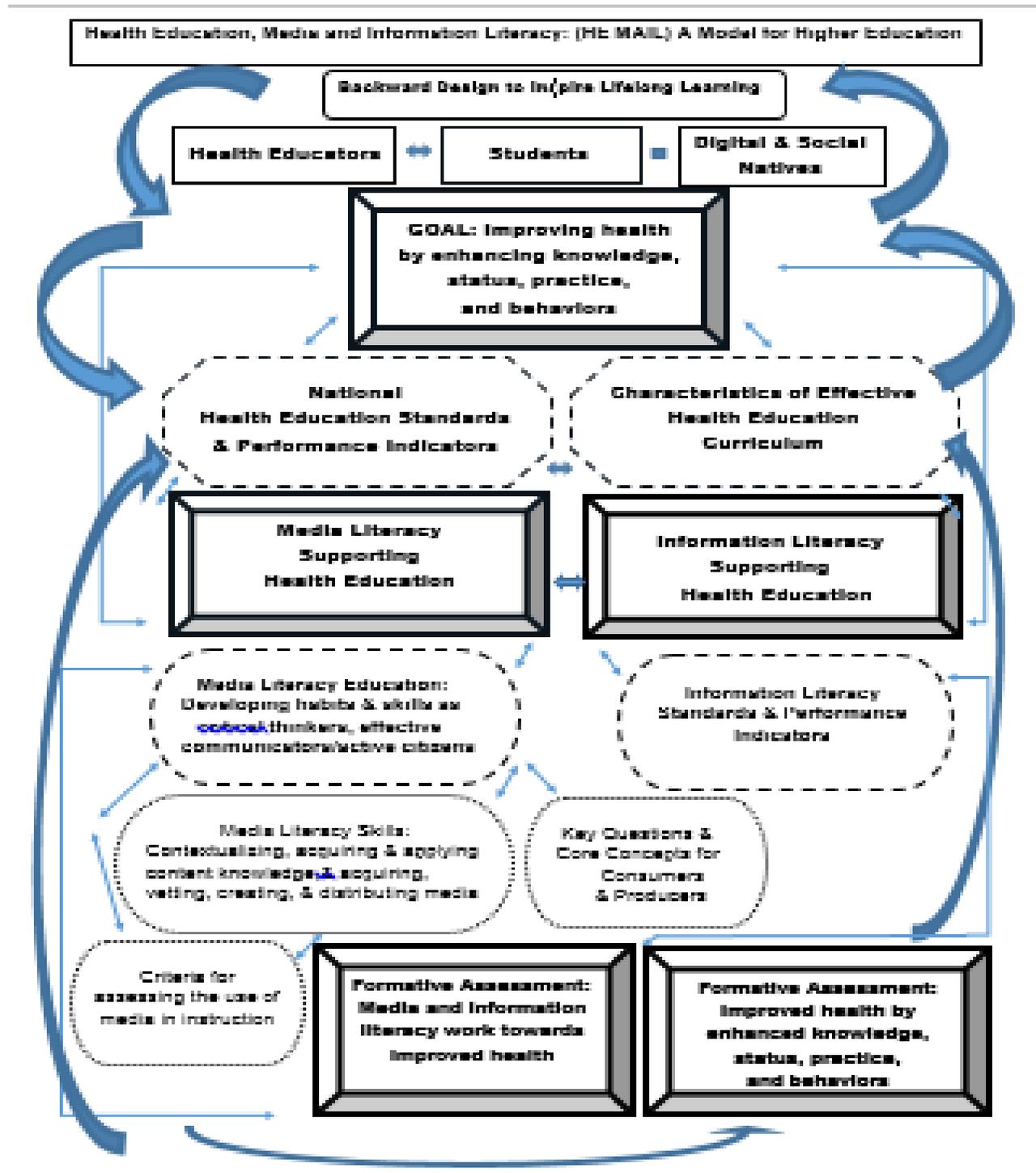
**A Conceptual Model to Intersect Media and Information Literacy Towards Improved Health:
Development of the HE MAIL Conceptual Model**

Figure 1 *Health Education, Media and Information Literacy (HE MAIL): A Conceptual Model for Higher Education*, draws from the literature and depicts the presumed relationships and key factors associated with media and information literacy and health education. The HE MAIL Conceptual Model may be used to guide design of higher education and secondary level health curricula, with particular focus on active learning, and integration of health content knowledge and essential literacies. In fact, “media literacy, with its emphasis on critical analysis and media production, lends itself well to designing and organizing new

curricular resources utilizing overall frameworks that support connected learning” (Jolls, 2015, p. 65). Information literacy emphasizes reflective discovery, production and value of information, information used to create new knowledge, and ethical participation in communities of learning (ACRL, 2016). Taken together, these hallmarks of the well-educated, well-prepared student can be expanded and deepened.

The HE MAIL Conceptual Model envisions health dispositions, and media and information literacy as lifelong skills extending throughout college, converging across the curriculum and into learner’s careers and personal lives. It should not be considered exhaustive. Moreover, with flexible options for implementation, the HE MAIL Model may be adopted and revised using associated standards and learning outcomes, and/or in accordance with an institution’s mission, global imperatives, and/or fluidity of resources.

The Conceptual Model is organized into six primary components: (a) Backward Design for Curriculum Development; b) Learners (health educators and students); (c) Health education goal, standards, performance indicators and characteristics; (d) Media literacy education, skills, key questions/core concepts, and criteria; (e) Information literacy, standards and performance indicators; (f) Formative assessment.



Health Education, Media and Literacy Model (HE MAIL) Explained

Using the HE MAIL Conceptual Model as a roadmap, we can see how media and information literacy can support health education purposes. The model assumes beginning with the end in mind, planning for desired understandings, acceptable assessment evidence, and what is in our students' best interest (Wiggins & McTighe, 2006). Accordingly, health educators plan curriculum backward, through Wiggins and McTighe's three-stage "Backward Design" process: "Stage 1: Identify Desired Results. Stage 2: Determine Acceptable Evidence. Stage 3: Plan Learning Experiences and Instruction" (2006, p. 17).

These processes inspire students (digital and social natives) and educators to learn from and with each other towards the goal: Improving health by enhancing knowledge, status, practice and behaviors. Note that both health educators and students are conceptualized as learners.

National Health Education Standards and Performance Indicators (CDC, 2015b) and the Characteristics of Effective Health Education Curriculum (CDC, 2015a) reciprocally inform the goal as well. Subsequently, we see that media literacy and information literacy work in tandem with health education, and in support of its primary goal.

At its core, media literacy education is grounded in inquiry-based, process-oriented pedagogy. With a purpose towards fulfilling the health education goal, media literacy education develops students' habits and skills as critical thinkers, effective communicators, and active citizens. Therefore, the HE MAIL Model next implies these habits and skills are reciprocally informed by media literacy skills to contextualize, acquire, and apply content knowledge; and to acquire, vet, create, and distribute media.

Media education is also bound by key questions and core concepts for consumers and producers (Center for Media Literacy, 2009), and The Consortium for Media Literacy's (2012) criteria for assessing the use of media in instruction.

Next, the HE MAIL Conceptual Model depicts that information literacy education and skills are informed by standards and performance indicators ascribed by the Association for College and Research Libraries, (2000, 2016).

Formative assessment of media and information literacy work is further linked to those same standards and performance indicators.

Finally, Formative assessment of improved health indicated by enhanced knowledge, status, practice, and behaviors is informed by the Characteristics of Effective Health Education Curriculum (CDC, 2015a), bringing us back to the health education goal.

All teaching and learning ultimately link back to lifelong learning associated with the (Wiggins & McTighe, 2006) Backward Design, and the cycle of curriculum improvement continues in a complete cycle of planning, teaching, learning, assessment, and improvement.

Further Review of Primary Constructs: Information Literacy Standards and Performance Indicators

The Information Literacy Competency Standards for Higher Education provided a scheme for assessing information literate individuals. From the standpoint of improving health by enhancing health knowledge, status, practices and behaviors, we may consider the following standards and performance indicators:

Standard: The information literate student evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system.

- Performance Indicators: Articulates and applies initial criteria for evaluating both the information and its sources; Determines whether the new knowledge has an impact on the individual's value system and takes steps to reconcile differences.

Standard: The information literate student understands many of the economic, legal, and social issues surrounding the use of information and accesses and uses information ethically and legally.

- Performance Indicators: Understands many of the ethical, legal and socio-economic issues surrounding information and information technology; Follows laws, regulations, institutional policies, and etiquette related to the access and use of information resources. (Association for College and Research Libraries, 2000, 2016)

National Health Education Standards

The National Health Education Standards (2007), available through the Centers for Disease Control (2015b), were developed to establish, promote and support health-enhancing behaviors for students in all grade levels and have been applied in higher education. The eight standards are also an accepted reference on health education, providing a conceptual model for the adoption of the standards by most US states. From the standpoint improving health by enhancing health knowledge, status, practices and behaviors, we may consider these particular standards and performance indicators:

Standard: Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.

- Performance Indicators: Analyze how the culture supports and challenges health beliefs, practices, and behaviors; Analyze how peers influence healthy and unhealthy behaviors; Evaluate the effect of media on personal and family health; Evaluate the impact of technology on personal, family, and community health; Analyze how the perceptions of norms influence healthy and unhealthy behaviors; Analyze the influence of personal values and beliefs on individual health practices and behaviors; Analyze how some health risk behaviors can influence the likelihood of engaging in unhealthy behaviors.

Standard: Students will demonstrate the ability to access valid information, products, and services to enhance health.

- Indicator: Evaluate the validity of health information, products, and services.

Standard: Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.

- Indicators: Use skills for communicating effectively with family, peers, and others to enhance health; Demonstrate refusal, negotiation, and collaboration skills to enhance health and avoid or reduce health risks; Demonstrate how to ask for and offer assistance to enhance the health of self and others.

Standard: Students will demonstrate the ability to use decision-making skills to enhance health.

- Indicators: Examine barriers that can hinder healthy decision making; Determine the value of applying a thoughtful decision-making process in health-related situations; Justify when individual or collaborative decision making is

appropriate; Generate alternatives to health-related issues or problems;
 Predict the potential short-term and long-term impact of each alternative on
 self and others; Defend the healthy choice when making decisions;
 Evaluate the effectiveness of health-related decisions.

Standard: Students will demonstrate the ability to advocate for personal, family, and community health.

- Indicators: Utilize accurate peer and societal norms to formulate a health-enhancing message; Demonstrate how to influence and support others to make positive health choices; Work cooperatively as an advocate for improving personal, family, and community health; Adapt health messages and communication techniques to a specific target audience (Centers for Disease Control, 2015b).

Characteristics of Effective Health Education Curriculum

From the standpoint of improving health by enhancing health knowledge, status, practices and behaviors, we may consider these particular characteristics of an effective health education curriculum:

- Fosters attitudes, values, and beliefs that support positive health behaviors; providing instructional strategies and learning experiences that motivate students to critically examine personal perspectives, thoughtfully consider new arguments that support health-promoting attitudes and values, and generate positive perceptions about protective behaviors and negative perceptions about risk behaviors.

- Addresses social pressures and influences and provides opportunities for students to analyze personal and social pressures to engage in risky behaviors, such as media influence, peer pressure, and social barriers; and provides functional health knowledge that is basic, accurate, and directly contributes to health-promoting decisions and behaviors.
- Provides accurate, reliable, and credible information for usable purposes so students can assess risk, clarify attitudes and beliefs, correct misperceptions about social norms, identify ways to avoid or minimize risky situations, examine internal and external influences, make behaviorally relevant decisions, and build personal and social competence. (CDC, 2015a, p. 1)

The HE MAIL Model assumes media and information literacy and health education build personal competence, social competence, and self-efficacy.

Therefore, aligned with the Centers for Disease Control Characteristics for Effective Health Education, educators adopting the HE MAIL Model are encouraged to (a) discuss each skill's importance, relevance, and relationship to other learned skills; (b) present steps for skill development; (c) model the skill; (d) practice and rehearse it using real-life scenarios; (e) provide feedback and reinforcement (CDC, 2015b).

For example, asking students to analyze media as sources of information, persuasion, and culture regarding topics such as disordered eating, nutrition, fitness, sexuality, substance abuse, or childhood obesity seamlessly supports the National Health Education Standards. Particularly regarding the "influence of culture, media, technology and other factors on health" (CDC, 2015b, p. 1). Information and media

literacies assist young people in detecting and rejecting potentially deceptive marketing campaigns or media messages that glamorize dangerous lifestyles.

Media Literacy: Key Questions and Core Concepts for Consumers and Producers

While the media landscape continues to evolve, the criteria for evaluating its content has largely remained consistent. Media creators, and distributors are held accountable through five core concepts and five key questions for deconstruction of media offered by the Center for Media Literacy in 2002. *The Media Deconstruction/Construction Framework* was enhanced. *Questions/TIPS* i.e. *Q/TIPS* (Center for Media Literacy, 2009) is now a useful resource to address viewpoints from both the consumer and producer's perspectives.

At its core, media literacy education is grounded in inquiry-based, process-oriented pedagogy. From the standpoint of improving health by enhancing health knowledge, status, practices and behaviors, we may consider these particular core principles from the National Association for Media Literacy Education (2007b, pp. 2-5):

- Media Literacy Education requires active inquiry and critical thinking about the messages we receive and create.
- Media Literacy Education recognizes that media are a part of culture and function as agents of socialization.
- Media Literacy Education affirms that people use their individual skills, beliefs and experiences to construct their own meanings from media messages.

The Consortium for Media Literacy's *Q/TIPS Framework with Five Key Questions and Core Concepts for Consumers and Producers* (2012), also known as the Center for Media Literacy's (2009) *Five Key Questions and Core Concepts for Consumers and*

Producers Media Deconstruction/Construction Framework, is readily applied to various media messages regardless of mode or device. The consortium's approach to media literacy education is "founded on the premise that one's relationship to media is not defined by the latest technological advancement but rather by the ability to think critically about all media messages regardless of the messenger" (p. 2).

Guided practice with the Five Key Questions and Core Concepts is useful in helping students to adopt a process to effectively investigate media and produce media. Central to this is the ability to distinguish fact from opinion, and ability to separate content information from contextual inferences. Additionally, the CML Framework of Five Key Questions and Core Concepts serves as a curricular template to guide assessment (CML, 2012).

For each of the key words in the figure, the Center for Media Literacy offered guiding questions: Authorship Guiding Questions: What kind of "text" is it? What are the various elements (building blocks) that make up the whole? How similar or different is it to others of the same genre? Which technologies are used in its creation? What choices were made that might have been made differently? How many people did it take to create this message? What are their various jobs? (Center for Media Literacy, 2005, p. 14).

Format Guiding Questions: What do you notice... (about the way the message is constructed)? Colors? Shapes? Size? Sounds, Words? Silence? Props, sets, clothing? Movement? Composition? Lighting? Where is the camera? What is the viewpoint? How is the story told visually? What are people doing? Are there any symbols? Visual metaphors? What's the emotional appeal? Persuasive devices used? What makes it seem "real?" (Center for Media Literacy, 2005, p. 28).

Audience Guiding Questions: Have you ever experienced anything like this in your life? How close is this portrayal to your experience? What did you learn from this media text? What did you learn about yourself from experiencing the media text? What did you learn from other people's response? From their experience of life? How many other interpretations could there be? How could we hear about them? Are other viewpoints just as valid as mine? How can you explain the different responses? (Center for Media Literacy, 2005, p. 42).

Content Guiding Questions: What kinds of behaviors / consequences are depicted? What type of person is the reader / watcher / listener invited to identify with? What questions come to mind as you watch / read / listen? What ideas or values are being "sold" to us in this message? What political ideas are communicated in the message? Economic ideas? What judgments or statements are made about how we treat other people? What is the overall worldview of the message? What ideas or perspectives are left out? How would you find what's missing? (Center for Media Literacy, 2005, p. 56).

Purpose Guiding Questions: Who's in control of the creation and transmission of this message? Why are they sending it? How do you know? Who are they sending it to? How do you know? What's being sold in this message? What's being told? Who profits from this message? Who pays for it? Who is served by or benefits from the message – the public? – private interests? – individuals? – institutions? What economic decisions may have influenced the construction or transmission of this message? (Center for Media Literacy, 2005, p. 68).

Criteria for Assessing the Use of Media in Instruction

The Consortium for Media Literacy (2012) also advanced a set of principles for media literacy instruction, and to assess educational programs that utilize media instruction:

- Teach about the media, and not just with media
- Help students understand media as a system of representation for oneself and others
- Engage students in critical “reading” and “writing” of media texts
- Foster habits of critical thinking which can motivate students to engage in sustained inquiry with media texts
- Provide opportunities for practice with key media literacy questions and core media literacy concepts through an accessible conceptual model easily applied
- Encourage students to examine media from multiple perspectives, including differing audience viewpoints
- Encourage students to engage personally--not just intellectually--in making meaning from the media they consume and produce (2012, p. 4).

Jenkins (2014) found Q/TIPS adaptive to any content or academic subject, and to any media message whether digital or not. As students undertake projects or interact, they can identify, label and learn the concepts and questions essential to evaluating media, examining the constructs and the contexts surrounding it. As an example of Q/TIPS in action, TakePart, a digital news and lifestyle magazine reported in 2014 that 3,723 pledges were made to “stand with the Center for Media Literacy and look past what’s on the surface when consuming and creating media” (1).

**Formal Assessment:
Media and Information Literacy Work Supporting Health Education**

As an assessment example, revisiting one National Health Education standard and its performance indicators, we can focus on “media” and “influence” to frame a meaningful learning activity and relevant assessment.

Standard: Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.

- Performance Indicators: Analyze how the culture supports and challenges health beliefs, practices, and behaviors; Analyze how peers influence healthy and unhealthy behaviors; Evaluate the effect of media on personal and family health; Evaluate the impact of technology on personal, family, and community health; Analyze how the perceptions of norms influence healthy and unhealthy behaviors; Analyze the influence of personal values and beliefs on individual health practices and behaviors; Analyze how some health risk behaviors can influence the likelihood of engaging in unhealthy behaviors.

(CDC, 2015a).

Benes and Alperin (2016) explained that this standard teaches students to consider influences from a variety of viewpoints (positive, negative, external, internal) and contexts (nutrition, fitness, mental health etc.). Students learn what influences them and how their beliefs or actions can influence others. Given that media greatly influence health, students can examine websites, social media, etc. With regard to this particular health education standard, students may be held responsible for critically analyzing and

evaluating how influences across multiple contexts and factors support or hinder healthy behaviors, practices, and beliefs.

Prompts might include: Identify the media influence. Analyze the media influence: How do I know it is influencing me? What messages am I receiving from this media influence? Is this a positive or negative influence? How much is this influencing my thoughts, values, beliefs, or actions. How are other factors interacting with this and how may that affect my choices? What is the best plan of action to handle this influence in my life?

Assessment would logically engage rubrics with clearly delineated performance indicators. MediaSmarts (2016) recommended that assessments further reflect key concepts of media literacy. Those are:

(a) all media messages are constructed; (b) media messages are constructed using a creative language with its own rules; (c) different people experience the same media message differently (i.e. audiences negotiate meaning; (d) media have embedded values and points of view; (e) most media messages are organized to gain profit and/or power.

(Center for Media Literacy, 2005, 2009)

In general, media literacy work can be assessed based on how well the student understands the key concepts of media literacy and the specific concepts and ideas being explored in the lesson or assignment; in this case health topics.

Information literacy standards advanced by the Association for College and Research Libraries (2016) serve as guidelines for developing methods to assess student learning within the context of an institution's mission. Assessment instruments and strategies can useful feedback about students' basic information literacy skills in the context of particular disciplines; in this case, health topics.

**Formal Assessment:
Improved Health by Enhanced Knowledge, Status, Practice, and Behaviors**

The National Health Education Standards and CDC Characteristics of Effective Health Education provide a framework for assessing improved health. However, assessment is complicated. This article recognizes the purposes and limitations of assessments; assessments provide inferences (interpretations) about students' skills or knowledge. We use students' performance to arrive at an inference regarding those skills or knowledge. It is important to note the HE MAIL Model does not ascribe to summative assessment, which attempts to determine if instruction was effective.

Rather, HE MAIL assumes value in formative assessment; *evidence-based* instructional decision-making intending to improve on-going instruction. Formative assessment leads to instructional adjustment decisions by teachers or learning tactic adjustment decisions by students, and these adjustments will affect activities or efforts towards improvements. (Popham, 2008, Classroom Assessment para. 4).

Educators adopting the HE MAIL Model are encouraged to engage in formative assessment as described by noted assessment authority W. J. Popham: "Formative

assessment is a planned process in which teachers or students use assessment-based evidence to adjust what they're currently doing” (2008, Useful Definition para. 2).

Formative assessment is not a test but a process—
 a *planned* process involving a number of different activities. One of those activities is the *use of assessments*, both formal and informal, to elicit *evidence regarding students' status*: the degree to which a particular student has mastered a particular skill or body of knowledge. Based on this evidence, *teachers adjust* their ongoing instructional activities or *students adjust* the procedures they're currently using to try to learn whatever they're trying to learn.
 (Popham, 2008, Useful definition para. 2)

Conclusion

This work has extended media literacy education, information literacy education, and health education literature. It provides insights into successful practices for integrating health content with essential 21st century literacies. The overviewed media and information literacy skills and health standards are central to our students' contextualizing, acquiring and applying health knowledge towards improved wellness. Additionally, this impending research-based, integrated curriculum associates Standards of Practice for Health Promotion in Higher Education (ACHA, 2012) including supporting student success, preventing health problems, and creating supportive environments for health.

The proposed HE MAIL Model emphasizes the interrelationship of 'Backwards Design,' formative assessment, media construction and deconstruction, and the habits

and skills associated with media participation and information literacy; all towards wellness. Through the integrated curriculum assumed in the model, health education is presented as a means to improve health by enhancing knowledge, status, practice, and behaviors.

The proposed HE MAIL Model further advances a “healthward enterprise; an ambition for lifelong personal health promotion” (Hansen et al., 2015, p. 281). Through health education, students develop the abilities to acquire valid health information and apply it to informed health decision-making (Hansen et al., 2015). As a conceptual framework, the *HE MAIL* Model is distinctive. It illustrates the complex interrelationships among the factors that influence and are influenced by media literacy education, information literacy education, and health education, all toward positive health outcomes.

Educational Implications and Future Research

As a curriculum and evaluative mapping tool, the HE MAIL framework can reduce planning time in developing and assessing 21st century literacy skills associated with health promotion. It can also advance the discussion and operationalization of this complex construct. The framework may be adopted by educators to conceptualize associations among interdisciplinary media and information literacy and health education; to guide design or redesign of lessons, assignments, courses or curriculum with an emphasis on active learning; and/or to guide future research. Students may find that the model clarifies the relevance of health studies. The literature review and the *HE Mail* conceptual framework and advance efforts to improve health by enhancing health knowledge, status, practices and behaviors, and teach our digital and social natives to actively inquire, and think about the messages they receive and create.

Future research guided by the presented HE MAIL Conceptual Model could evaluate effectiveness of health-promoting media and information literacy education to address a variety of college health concerns. It is intended that the model's fluidity will encourage such adjustments and that they will affect activities or efforts towards improvements.

Future research could also fully test the relationships the model postulates, or apply it to a single health behavior such as weight management or disordered eating. Additional work can also expand conversation about meeting the needs of 'social natives,' and the scholarship of teaching, learning, and assessment.

The *HE MAIL* Conceptual Model is a first step towards these and other efforts to improve health by enhancing health knowledge, status, practices and behaviors, and teach our digital and social natives to actively inquire, and think critically about the messages they receive and create.

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