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Toward a Media Literate World: Exploring Secondary Educators' Challenges Incorporating Media Literacy Education

Jessica Harvey (https://orcid.org/0000-0002-4789-6532) Tracy A. McNelly (https://orcid.org/0000-0002-3801-6054) Jennifer A. Buxton (https://orcid.org/0000-0003-0148-3318) Saint Vincent College, USA

Abstract

Classroom teachers can be instrumental in helping students develop media literacy skills. Studies indicate, however, that educators experience a variety of challenges (e.g., lack of time, administrative support, training) in their efforts to include media literacy education within their curriculum. These challenges have been shown to impede teachers' inclusion of media literacy education, as well as limit teachers' understanding of media literacy. The current study sought to investigate these types of challenges reported by teachers and librarians. The study obtained a sample of 69 secondary educators who were surveyed about their confidence integrating media literacy in classes, the challenges they face doing so, and their integration of media literacy education into their curriculum. An exploratory factor analysis indicated that challenges reported by educators grouped into three different factors: training challenges, internal challenges, and external challenges. The sample of educators reported experiencing all the challenges to varying degrees, however, only the training challenges and external challenges predicted educators' confidence incorporating media literacy. The external challenges factor was the only factor that predicted a decrease in educators' incorporation of media literacy within courses. Internal challenges were not significantly predictive of either outcome variable.

Keywords: media literacy education, secondary education, teachers, exploratory factor analysis



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https:// creativecommons.org/ licenses/by/4.0/ Today's adolescents are more connected to digital media than at any other time in history. Ninety-five percent of teens, ages 13 to 17, own or have access to a smartphone (Anderson & Jiang, 2018) and access to technology continues to grow among younger children with about half of ten-year-olds reportedly owning a smartphone (Ofcom, 2020). Youth in the United States spend a good portion of their day with various media. For example, 8-to-12-year-olds report spending an average of five hours a day with media and adolescents report spending about seven and a half hours daily with various types of media, not including media used for school purposes (Rideout et al., 2022). Social media use is increasing steadily across age groups of young people, with 43% of 11-year-olds in the UK claiming to have a social media profile and virtually every 15-year-old reportedly having one (Ofcom, 2020); although traditional media-related activities like watching television and videos, as well as playing video games still dominate the screen time of many young people in the United States (Rideout & Robb, 2019).

Much of the responsibility of teaching children to navigate their digital world has been left to educators and parents, however, many parents express that technology and social media make parenting harder today than in previous decades (Auxier at al., 2020). Additionally, parents report feeling concerned about the negative effects of media on their children (Lauricella et al., 2016) and would like to learn more about preventing negative effects (Stanley et al., 2017). For many media literacy advocates, media literacy education (MLE) should additionally take place outside of the home in academic curriculum and more formalized educational settings (e.g., Hobbs, 2010; Jolls & Wilson, 2014). Despite the support for including MLE in educational curriculum, very few states in the U.S. have legislation that requires MLE (Media Literacy Now, 2020), however, educators do believe that it is important to incorporate media literacy into primary and secondary curriculum (Stein & Prewett, 2009), and some are able to find ways of doing so (Baker et al., 2022; Schieble, 2010). For instance, educators have integrated media literacy in a variety of placements within the school setting, including within content area courses, as standalone courses, as part of an after-school or community program or through guest lectures and special events (Culver & Redmond, 2019; Dezuanni, 2020; Hamilton et al., 2020; Redmond, 2013).

A variety of studies have identified challenges cited by educators that limit their ability to include media literacy in their curriculum (e.g., Baker et al., 2022; Nettlefold & Williams, 2021). Using previous research as a springboard, the current study investigates the underlying dimensions of these challenges reported by secondary teachers, as well as the influence that these challenges may have on educators' inclusion of MLE in classes. Before discussing our methods of data collection and analysis, we briefly define and describe media literacy education and then discuss previous research that has investigated challenges teach-

ers' experience integrating media literacy within their curriculum.

Media Literacy Education

According to the National Association of Media Literacy Education, media literacy is "the ability to access, analyze, evaluate, create, and act using all forms of communication" (n.d., para. 1). Present day adolescents are inundated with mediated messages, spend a large amount of time in media-saturated environments, and can be prolific producers of media content (Rideout et al., 2022; Ofcom, 2022). However, navigating a world filled with media choices and mediated communication can be challenging for youth, especially when that media doesn't meet young people's developmental needs and abilities (Valkenburg & Piotrowski, 2017). Media literacy education has the potential to equip young people with the tools to navigate media and utilize it in ways that can benefit their well-being as digital citizens (Mihailidis, 2014). A recent report on the state of media literacy laws for K-12 schools in the United States suggests that "if our children and our society are to meet the challenges of a rapidly changing global communications environment, media literacy skills are imperative" (Media Literacy Now, 2020, p. 4).

Media literacy education is broad and can involve efforts like informing youth about media, helping young people become more critical media users, and working with people to create media content. As a method for encouraging critical thinking about media, this type of education has been shown to help young people understand and analyze media accuracy and bias (e.g., Kahne & Bowyer, 2017; Nelson, 2016), become more critical media viewers (e.g., Rozendaal et al., 2012), and increase knowledge and awareness of media's influence (e.g., Jeong et al., 2012; Martens, 2010). Media literacy education can help youth develop the skills to discern what is "true" or factual in media content, as well as help them become "engaged citizens, responsible consumers, healthy individuals, and informed creators of content" (Media Literacy Now, 2020, p. 5). MLE additionally involves developing skills in media production and the creation of media content. According to the Education Development Center, "youth media making cultivates young peoples' skills in analyzing and critiquing media; fosters creative idea development on the issues they care about; empowers youth to use technology to create and share compelling work with an audience they want to reach" (Rivenburgh & Goddard, 2019). Furthermore, scholars have found that the process of creating media can be an "empowering and transformative" experience for youth (e.g., Friesem, 2014, p. 52).

The need for MLE is underscored by research that suggests that despite young people's frequent use of media, many are ill equipped with the skills to think critically about media content and understand some of the basic functions of media (e.g., persuasion). For example, young people have difficulty identifying misinformation (McGrew et al., 2017), evaluating media content (McGrew et al., 2017; Steeves,

2014), differentiating fake news from real news (Robb, 2017), and recognizing sponsored advertising content online even when it is identified with the word "Ad" (Ofcom, 2020). Over the course of a year and a half, the Stanford History Education Group administered tasks to assess students' ability to reason about information they saw on the Internet. The researchers found that 82% of middle schoolers believed that sponsored content was a real news story, rather than an advertisement (Breakstone et al., 2019). Additionally, more than 70% of the study's sample of high schoolers selected sponsored content when asked to choose the most reliable source (Wineburg et al., 2016). Furthermore, Breakstone et al. (2019) found that two-thirds of high school students could not tell the difference between news stories and ads and 96% had difficulty assessing the credibility of a website.

Despite the need for and benefits of MLE, and while legislation has guided the creation of standards for other content areas, very few states in the U.S. have made media literacy education a priority. In fact, currently only 14 U.S. states have some type of media literacy-related legislation and only a few others are working to introduce legislation. While some U.S. states, such as Texas, Florida and Ohio, require standards and curriculum that include MLE, legislation for MLE in other states is less robust (Media Literacy Now, 2020). The absence of uniform legislation and lack of MLE standards in many U.S. states create challenges for educators interested in incorporating media literacy into their curriculum.

Challenges Incorporating MLE

An effort to integrate MLE into primary and secondary classes must recognize and work to minimize challenges teachers experience incorporating media literacy in their curriculum. Certainly, a key issue that contributes to these challenges is the lack of large-scale legislation across the United States that mandates media literacy's inclusion in primary and secondary schools' core standards. Without such legislation, the likelihood of inclusion of MLE in school classrooms decrease, as educators cite competing curricular requirements (e.g., Culver & Redmond, 2019), lack of media literacy training (Nettlefold & Williams, 2021), limited administrative support (Deal et al., 2010), absence of suitable teaching materials (Belova & Eilks, 2016), lack of resources (e.g., Baker et al., 2022; Nettlefold & Williams, 2021), and competing home and school values (Deal, Flores-Koulish, & Sears, 2010) as challenges to MLE integration. A report by NAMLE (2019) on the current state of media literacy explains:

Since the No Child Left Behind Act (2001) and its successor, Every Student Succeeds Act (2015), K-12 schools have been pressured to meet external demands. In schools across the country, curriculum decisions focus on subjects that will be tested statewide and nationally. Media literacy may be an acknowledged need, but it is not on the list of subjects tested

and therefore is simply not perceived as critical to school curriculum as other subject areas (Culver & Redmond, p. 9).

The absence of core standards within the U.S. states that include media literacy can impede institutional support for MLE, which can lead to a variety of challenges for educators. Share and colleagues (2019) examined secondary teachers' experiences teaching critical media literacy in classes. According to these authors, "critical media literacy promotes an expansion of our understanding of literacy to include many types of texts...as well as deepening of critical analysis to explore the connections between information and power" (Share et al., 2019, p. 7). The study's sample of teachers had taken a critical media literacy course, yet still reported limited resources and administrative support as challenges that made incorporating critical media literacy into their classes difficult. Additional studies have found that despite teachers' desire to learn more about MLE and incorporate some facet of it into their curriculum, educators report feeling challenged to do so due to an absence of available media literacy training and professional development opportunities (e.g., Baker et al., 2022; Belova & Eilks, 2016; Culver & Redmond, 2019; Hattani, 2019; Nettlefold & Williams, 2021). Indeed, research has shown that teachers who have training in media literacy are more likely to incorporate it in their classes than those who have not received any training or coursework in MLE (e.g., McNelly & Harvey, 2019).

Without MLE training and professional development opportunities, teachers are often left to learn about media literacy on their own. A recent report by NAMLE found that 74% of the study's sample of educators reported that their learning about media literacy education was "selftaught," followed by 43% of respondents reportedly receiving "professional development" in MLE (Culver & Redmond, 2019). Even if teachers recognize the value of media literacy instruction, the extra time it takes to locate and incorporate materials into lesson plans can make it too challenging to do so (Belova & Eilks, 2016; Culver & Redmond, 2019; Hattani, 2019; Share et al., 2019). A study that explored German science teachers' experiences incorporating advertising into classes found that their entire sample of educators, albeit a small sample, reported a lack of time and an already overloaded curriculum as major limiting factors to promoting scientific media literacy in classes (Belova & Eilks, 2016). Similarly, research has found that teachers report too many other responsibilities as impeding efforts to implement and promote media literacy within their instruction (e.g., Baker et al., 2022).

Although research has uncovered challenges teachers face incorporating MLE into classes, we still know very little about these challenges beyond their identification by educators. Exploring whether there are underlying dimensions that can group the challenges in logical ways may help determine various paths to alleviate these challenges.

es for educators interested in incorporating MLE within their curriculum. Furthermore, determining the types of challenges that may affect teachers' confidence in incorporating it in their classes, as well as the likelihood that they will incorporate it in their curriculum can help efforts to address these challenges for educators.

For these reasons, the current study seeks to better understand the types of challenges reported by educators that limit their incorporation of media literacy in curriculum. Hence, our study is guided by the following research questions:

RQ1: What specific challenges do teachers report experiencing when incorporating media literacy education into their classes?

RQ2: Are there underlying dimensions in the Challenges Incorporating Media Literacy scale?

RQ3: What types of challenges reported by teachers are more likely to decrease their confidence incorporating media literacy into their classes?

RQ4: What types of challenges reported by teachers are more likely to decrease their incorporation of media literacy into their classes?

Methods

The current study seeks to better understand the types of challenges secondary educators experience incorporating MLE into curriculum. Data for this study were drawn from a survey that investigated how secondary educators conceptualized media literacy, their confidence in incorporating it into their curriculum, implementation of media literacy education, and challenges faced when incorporating media literacy education.

Following the approval of the college's Institutional Review Board, the study was presented to a curriculum council meeting attended by school district superintendents, assistant superintendents, and administrators across 15 school districts in Western Pennsylvania located within the United States. Those administrators not in attendance were emailed to gain permission to recruit survey participants from their school district. Once school district permission was secured, principals disseminated the study information to appropriate educators. Library/media specialists, English language arts teachers, and social studies teachers from secondary schools were targeted due to the increased likelihood that they would incorporate media literacy into their classes, compared to elementary school teachers (Share et al., 2019), as well as other subject areas where media literacy is often not taught (Stein & Prewett, 2009; Zucker, 2019). Data were collected using a Qualtrics survey, whereas participants provided their consent to participate in this study. Survey respondents were incentivized with an opportunity to win one of four \$25 Amazon gift cards.

Sample

A total of 108 participants began the survey, however, only 69 participants completed the survey in its entirety. The majority of the final sample of participants was female (n=48) and the entire sample of educators identified as white. Participants' ages ranged from 26 to 64 years old, with a mean age of 44 years. Survey respondents were, for the most part, highly educated with almost half of the respondents earning a master's degree (n=32), followed by 23% who earned a Bachelors +24 post-baccalaureate credits (n=16), 21% who earned a Masters + (n=15), seven percent who held a Bachelor's degree (n=5), and one percent reportedly earning a doctorate degree (n=1).

The average amount of time spent teaching in a full-time contract position was 15.5 years. Approximately half of the respondents reported teaching English language arts (n=35), followed by approximately one-third who taught Social Studies (n=22), and eight respondents who were Library/Media Specialists. The largest percentage of respondents reported teaching 11th grade (49%; n=34), followed by 12th grade (44%; n=30), 10th grade (42%, n=29), 9th grade (39%, n=27), 7th grade (32%, n=22), and 8th grade (28%, n=19), however, respondents were asked to select all grade levels that they have taught, so the total percentages do not equal 100%. About half of the respondents (n=36) reported that 25% or less of their students were labeled economically disadvantaged in the school district, and 28 respondents reported that 26-55% of their students were labeled economically disadvantaged in their school district.

Forty-nine survey respondents (71%) reported that they had taken a course or workshop that incorporated some component of media literacy. Thirty-three percent (n=23) reported that they had taken one course or workshop, 15% (n=10) had taken two courses or workshops, and 23% (n=16) reported taking three or more workshops or courses that incorporated media literacy. Additionally, forty-eight (70%) respondents reported that they had not spent time on their own researching media literacy education.

Measures

The study seeks to better understand the challenges reported by secondary educators, and whether particular challenges are predictive of or related to variables such as educators' confidence incorporating MLE into their curriculum and their integration of media literacy into their courses.

Challenges Incorporating Media Literacy

To assess educators' perceptions of the different challenges they experience incorporating media literacy education into their curriculum, a scale was developed based on previous research that has identified a variety of these challenges. As discussed in our review of lit-

erature, major challenges that limit teachers' ability to teach media literacy include a lack of training, time restraints, the absence of resources, lack of administrative support, and educational standards that do not address MLE. The final measure consisted of ten items (a = .83) that asked respondents the following: "Below is a list of different challenges that teachers may face when trying to incorporate media literacy education in their courses. Please indicate the extent to which you have experienced any of these challenges." Each item identified a different challenge experienced by teachers. For example, "lack of training in media literacy education," and "media literacy education is not a part of my required district curriculum." Response options ranged from 1 (strongly agree) to 5 (strongly disagree), with higher scored indicating more experience with the challenges (M = 3.58). Refer to Table 1 and Table 2 for each item of the final measure.

Confidence Integrating Media Literacy

To investigate teachers' confidence in integrating media literacy in their classes, a 13-item scale was constructed ($\alpha = .95$) with items drawn from a measure developed by Simmons et al., (2017) along with definitions of media literacy (Kaiser Family Foundation, 2003). Respondents were asked, "To what extent do you believe you can integrate media literacy in your instruction," followed by statements on different ways that teachers integrate media literacy into their classes. The following are examples of the scale items: "I am confident that I can... help my students use media devices for technical purposes (e.g., computer, tablets, interactive whiteboard); teach my students how to conduct a close analysis of a media text (e.g., accuracy of information, perspective, purpose of message); help my students create media content (e.g., set up a blog, create a video document)." Identical to the Challenges Incorporating Media Literacy scale, response options ranged from 1 (strongly disagree) to 5 (strongly agree). Survey items were summed and averaged for each respondent to create the confidence integrating media literacy scale, with higher scores indicating more confidence integrating media literacy into respondents' courses (M = 3.71).

Integration of Media Literacy

To assess educators' integration of media literacy in classes, the same items from the media literacy efficacy scale were reworded and used to assess how often, if at all, educators integrate these different aspects of media literacy into their classes ($\alpha = .94$). Respondents were asked, "To what extent do you incorporate media literacy into your instruction." The beginning of each item was changed from a statement that reflected confidence integrating media literacy (i.e., "I am confident that I can...") to actual integration in the classroom (i.e., "I teach my students..."). Response options for these survey items included the following 5-point scale: 1 (never), 2 (at least once during the course), 3 (at least once per month), 4 (at least once per week), and 5 (daily). Survey items were summed and averaged for each respondent

to create the integration of media literacy in courses scale (M = 2.37). Higher scores indicated more integration of media literacy in courses.

Results

Descriptive Statistics

Descriptive statistics, including frequencies, means, and standard deviations for each item of the self-reported teacher survey responses concerning the challenges incorporating media literacy were obtained to answer the first research question (i.e., What specific challenges do teachers report experiencing when incorporating media literacy education into their classes?). Table 1 includes distributions for the 10 individual items used to define the Challenge Incorporating Media Literacy (CIML) scale. Table 2 includes the percentage of respondents who agreed, disagreed, or neither agreed nor disagreed with each of the CIML scale items.

Item	Mean	SD
Lack of training in media literacy education	4.10	1.05
Lack of training in digital media	3.91	1.12
Not enough time in my course	4.14	0.90
Not enough time to locate resources	3.94	0.97
Lack of technology resources	3.55	1.27
Lack of media literacy resources	3.48	1.16
Media literacy education is not a part of my required district curriculum	3.43	1.25
Media literacy education is not a part of my academic standards	3.10	1.25
Lack of administrative support	2.96	1.17
Conflicting school and home values about media literacy education	3.13	1.09

Note. Item response options 1 = Strongly agree, 2 = Somewhat agree, 3 = Neither agree or disagree, 4 = Somewhat disagree, 5 = Strongly disagree.

Table 1: Distributions of the Items of the Challenges Incorporating Media Literacy Scale

		%	
		Neither	
	%	Agree or	%
Item	Agree	Disagree	Disagree
Lack of training in media literacy education	85	6	9
Lack of training in digital media	72	15	13
Not enough time in my course	81	12	7
Not enough time to locate resources	70	23	7
Lack of technology resources	55	25	20
Lack of media literacy resources	52	28	20
MLE is not a part of my required district curriculum	52	26	22
MLE is not a part of my academic standards	36	36	28
Lack of administrative support	33	35	32
Conflicting school and home values about MLE	39	35	26

Note. MLE = media literacy education.

Table 2: Percent of Agreement with the Challenges Incorporating Media Literacy Scale Items

Exploratory Factor Analysis Correlated Variables

To address the second research question (i.e., Are there underlying dimensions in the Challenges Incorporating Media Literacy scale?), Pearson Product Moment correlation coefficients for the total sample of all 10 items were obtained. The general analysis of the correlation matrix of the 10 items from the CIML scale indicated several statistically significant correlations across scale items. Thus, Exploratory Factor Analysis was necessary to better identify the underlying dimensions of these data.

Factor Analysis

Exploratory Factor Analysis (EFA) under Principal Component Analysis (PCA) was employed on the 10 items that define the Challenges Incorporating Media Literacy scale using SPSS. The following criteria were used to determine the number of dimensions (i.e., underlying factors) in the scale: the a priori hypothesis that the measure was multidimensional, the root ≥ 1 criterion, the scree test, and the interpretability of the factor solution. The results of the root ≥ 1 criterion and scree test analyses indicated a three-factor structure, thus supporting the a priori hypothesis that the measure was multidimensional was correct. Based on these results, three factors were rotated using a Varimax rotation procedure. The rotated solution, as shown in Table 3, yielded the following three interpretable factors: Training Challenges, Internal Challenges, and Outside Challenges. The Training Challenges factor was comprised of two items that explained 19% of the variance of the 10 items, with both factors loading at .92. The Internal Challenges factor contained

	Factors		
Items	TC	IC	OC
Training Challenges (TC) Items			
Lack of training in media literacy education	.92	.15	.25
Lack of training in digital media	.92	.26	.19
Internal Challenges (IC) Items			
Not enough time in my course	.20	.57	.15
Not enough time to locate resources	.11	.57	.27
Lack of technology resources	.21	.83	05
Lack of media literacy resources	.00	.87	.07
Outside Challenges (OC) Items			
MLE is not a part of my required district curriculum	.21	.06	.88
MLE is not a part of my academic standards	.03	.10	.91
Lack of administrative support	.19	.48	.53
Conflicting school and home values about MLE	.25	.14	.63

Note. Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.^a a. Rotation converged in 5 iterations. MLE = Media Literacy Education

Table 3: Correlations between the Challenges Items & Factors

four items that explained 25% of the variance with factor loadings ranging from .57 to .87. The Outside Challenges factor included four items that explained 25% of the variance, with factor loadings ranging from .53 to .91. One item, lack of administrative support (.48), had a cross loading above .30, which indicates possible item redundancy. However, based on substantive considerations and due to the small sample size (N = 69), this item was retained in the Outside Challenges scale.

Reliability

Reliability estimates were used to obtain additional support for the three-factor structure identified through the EFA. For analysis of Internal Consistency reliability, estimates (i.e., Cronbach's Alpha coefficient), total item correlations (Corrected Item Values), and Cronbach's Alpha if Deleted were obtained for the three scales. Reliability analysis was run for all three factors because Cronbach's Alpha is unidimensional. Nunnally's (1978) widely accepted social science cut-off alpha value 0.70 was used to assess the reliability of the three subsets. The reliability of the first factor, Training Challenges, and third factor, Outside Challenges, were high, r = 0.94 and r = 0.80, respectively. The reliability of the second factor, Internal Challenges, was moderate, r = 0.73.

Overall, the joint analyses of the EFA data indicated three distinct factors (Training Challenges, Internal Challenges, and Outside Challenges) underlie the set of 10 variables in the CIML scale. Further, the reliability data indicated that these factors demonstrated moderate to high internal consistency.

Linear Regression Analyses

To examine the remaining research questions, a scale variable for each of the three factors identified in the EFA was created by averaging the items included in each factor. Pearson Product Moment correlation coefficients for the three factors were then obtained. Due to the nature of the remaining research questions seeking information regarding specific predictors and the multicollinearity (i.e., correlated nature) of the three predictor variables (i.e., Training Challenges, Internal Challenges, and Outside Challenges), simple linear regression using SPSS was employed to examine the third and fourth research questions. Prior to conducting both regression analyses the data were examined to ensure that the assumptions of simple linear regression were met.

The simple linear regression conducted to examine RQ3 (i.e., What types of challenges reported by teachers are more likely to decrease teachers' confidence incorporating media literacy into their classes?) was statistically significant, F(1,67) = 13.41, p < .001. Further, R2 = .17, indicating that 17% of the variance in teachers' confidence incorporating media literacy is explained by the training challenges they reported. Additionally, it was found that teachers' confidence incorporating media literacy was negatively predicted by the training challenges report-

ed (β = -.32, p < .001). In other words, teachers' confidence decreased the more strongly they agreed with the items indicating that they experienced a lack of training in media literacy education and digital media.

The simple linear regression analyses also indicated a statistically significant relationship between teachers' confidence incorporating media literacy and the outside challenges they reported, F(1,67)=3.52, p=.021. Further, R2=.08, indicated that 8% of the variance in teachers' confidence incorporating media literacy is explained by the outside challenges they reported. It was also determined that teachers' confidence incorporating media literacy was negatively predicted by the outside challenges they reported ($\beta=-.24$, $\beta=.021$). Practically speaking, teachers' confidence decreased the more strongly they agreed that media literacy education is not a part of their required district curriculum, that media literacy education is not a part of their academic standards, that they have experienced a lack of administrative support related to media literacy education, and that they have experienced conflicting school and home values about media literacy education.

The analyses conducted to examine RQ4 (i.e., What types of challenges reported by teachers are more likely to decrease teachers' incorporation of media literacy into their classes?) was statistically significant, F(1,67) = 6.08, p = .016. Further, R2 = .08, indicated that 8% of the variance in teachers' incorporating media literacy is explained by the outside challenges they reported. Additionally, it was found that teachers' incorporation of media literacy was negatively predicted by the outside challenges reported ($\beta = -.29$, p = .016). In other words, teachers' incorporation of media literacy in their classroom decreased the more strongly they agreed that media literacy education is not a part of their required district curriculum, that media literacy education is not a part of their academic standards, that they have experienced a lack of administrative support related to media literacy education, and that they have experienced conflicting school and home values about media literacy education.

Discussion

This study focused on challenges secondary educators' report experiencing when trying to integrate media literacy education within their classes; specifically, we wanted to better understand the types of underlying dimensions across the challenges to learn more about these types of challenges, beyond their identification. While much of the research on teachers' challenges focuses singularly on the identification of MLE challenges teachers face (e.g., Baker et al., 2022; Culver & Redmond, 2019), our study sought to add another layer of understanding by providing insight into whether particular underlying dimensions of the challenges were more likely to predict teachers' confidence incorporating different aspects of MLE in their classes and how often they integrate MLE. Drawing from previous research

that has examined the challenges educators report experiencing incorporating media literacy in curriculum, we created a Challenges Incorporating Media Literacy scale (see Table 1) to assess our sample of educators' experiences with challenges to MLE course integration. As a whole, our sample reportedly experienced every challenge item on our scale, however, the challenges varied in the extent to which the educators experienced them. The most significant challenges reported were a lack of training in MLE and in digital media, as well as not enough time to teach MLE or locate MLE resources. Previous research has similarly found that a lack of time to integrate MLE is often cited by teachers as a significant challenge to MLE integration (e.g., Culver & Redmond, 2019), as well as a lack of training in MLE (e.g., Baker et al., 2022). More moderate challenges reported include a lack of technology and media literacy resources, and the fact that MLE is not included in educators' required district curriculum. The least challenging aspects reported were conflicting school and home values about MLE, lack of administrative support, and that MLE is not included in academic standards. These results appear to suggest that our sample of teachers most often experience challenges to MLE integration that they have some direct control over (e.g., training and time) and those they reported experiencing less often, they appear to have less control over (e.g., not a part of academic standards, lack of administrative support). Interestingly, our sample of educators reported a lack of training in MLE as the most challenging experience that limits their integration of MLE, however, over half of our sample (55%) reported receiving some type of training in MLE and 16 of those participants had reportedly taken three or more workshops. It may be that ongoing training or targeted training (e.g., how to incorporate advertising literacy into curriculum) of MLE is necessary for our secondary educators to feel less challenged when working to incorporate MLE in classes. Future research should explore educators' specific MLE training needs, as well as continue to assess the effectiveness of the MLE training (i.e., learning from the training) in preparing teachers to include media literacy lessons in classes.

Due to a lack of empirical evidence beyond the identification of challenges, we were unsure how the challenges in our CIML scale would cluster together, and if they did, whether there would be some logical grouping of the items. The results of our exploratory factor analysis indicated three underlying dimensions of media literacy challenges, which we labeled as training challenges, internal challenges, and outside challenges. We believe that these three factors clustered together in ways that are meaningful, logical, and provide us with more empirical evidence about the challenges faced by educators. However, the grouping of these items also elicited questions concerning the empirical investigation of MLE challenges and integration.

Our training challenges factor, which includes a lack of training in both MLE and digital media, appears to include experiences that are both within and outside of teachers' direct control. In other words, teachers have limited influence over the opportunities for teacher training in MLE, yet teachers do have the ability to seek out this type of training online, where they can find a variety of sample lesson plans, workshops, and trainings by media literacy organizations (e.g., Project Look Smart, Media Literacy Now). Like previous studies that have found a lack of training and professional development in MLE as common challenges reported by educators (e.g., Baker et al., 2022; Belova & Eilks, 2016; Culver & Redmond, 2019; Hattani, 2019; Nettlefold & Williams, 2021), over two-thirds of the educators in our sample agreed that a lack of training in MLE and digital media were challenges they experienced. However, the results of our analyses show that training challenges were only predictive of teachers' confidence integrating MLE, not how often they integrate MLE into their curriculum. In other words, educators' confidence integrating MLE decreased the more strongly they agreed with the items indicating that they experienced a lack of training in media literacy education and digital media. Conversely, those educators who expressed a lack of training as less challenging, were more confident in their ability to incorporate MLE in courses. As previously stated, over half of our sample reportedly engaged in some type of media literacy workshop, which may have increased our sample's confidence incorporating MLE in their classes. Indeed, previous research indicates that teacher training is a contributing factor to teachers' confidence in technology integration in classes (e.g., Badia, et al., 2014; Moore-Hayes, 2011; Shriner et al., 2010).

It is unclear why the training challenges dimension was significantly predictive of our confidence measure, yet not significantly predictive of actual MLE integration. Research that has examined the relationship between educators' confidence integrating MLE and actual incorporation of MLE in courses has found a strong association between these two variables (e.g., McNelly & Harvey, 2021), in that an increase in educators' confidence teaching MLE relates to an increase in how often teachers incorporate MLE in classes. Our MLE integration scale response options measured how often educators incorporate MLE in their classes, yet it may be that variations in how educators' feel about training challenges do not predict whether a teacher incorporates MLE once a semester, daily, or not at all. It may be more valid to assess whether training challenges predict the absence or presence of MLE integration into classes. Additional research is needed to explore these relationships between MLE training challenges, educators' confidence incorporating MLE in classes, and their efforts to integrate MLE in classes.

Another grouping of challenges was labeled "outside challenges" and included factors completely outside teachers' control, such as MLE not being included in the standards or in the course curriculum; lack of

administrative support; and conflicting school and home values about MLE. Interestingly, our sample of educators reported experiencing the items of this factor the least often of all the challenges, however, our data indicate that this is the only grouping of challenges that significantly predicted both the incorporation of MLE in curriculum, as well as teachers' confidence in doing so. This suggests that investigating the extent of challenging factors experienced by educators when integrating MLE in their classes (i.e., how strongly respondents agree to experiencing challenges incorporating MLE) provides only a limited understanding of these challenges. Considering the prediction of the "outside challenges" factor along with the means reported by the teachers, challenges experienced less often can be more predictive of the amount of MLE integration than those challenges that are reported more often. This underscores the need for more research that investigates the dynamics of these challenges and their relationship, and limits, to the incorporation of MLE. Furthermore, interpreting these findings through a theoretical lens of locus of control may help make sense of these results. For example, research on teachers' locus of control (Rotter, 1954) indicates that teachers with external locus of control, sensing a lack of control caused by external forces, are at risk for feelings of helplessness, stress and anxiety (e.g., Hooda & Annu, 2020) which can lead teachers to not seeing a connection between their effort and the outcome it brings (e.g., Halpin et al., 1985). Consequently, the educators in our study may have experienced decreased confidence and integration of MLE due to their sense of a lack of control over outside forces that limited their ability to incorporate MLE into their classes.

The other grouping of challenges that clustered together was labeled "internal challenges," and included a lack of time within courses and to locate resources, as well as a lack of both media literacy and technology resources. These items are within teachers' direct control, yet may be influenced by external factors, such as a lack of knowledge about how to locate media literacy and technology resources, or that such information exists. Although our sample as an aggregate reported experiencing these challenges more often than the external challenges group, the internal challenges factor did not predict educators' confidence incorporating MLE or how often they incorporate MLE into curriculum. This factor included two scale items about time and two scale items that address a lack of resources, however, it is not clear how our respondents interpreted the latter of the two items. We labeled these items as "internal challenges," but they could also be interpreted as "time challenges," because educators may interpret them as a lack of time, and even knowledge, about how to locate MLE resources. Because these factors, according to our interpretation, refer to MLE challenges that are in control of educators, it may be that our sample did not feel these internal challenges were significant enough to limit their incorporation of MLE or their confidence in doing so. Additionally, educators that found these internal challenges more limiting may not have an interest in incorporating MLE, especially when MLE is not a part of their academic standards, and they have not received proper training in MLE and digital media.

Our study contributes to the ongoing academic and social conversation about the integration of media literacy education in the context of secondary education. Despite our findings that suggest the value of MLE training, legislation, and administrative support for MLE integration, the interpretation of our study's results is limited by our data collection and analysis. Our efforts to recruit secondary English language arts, social studies, and library/media specialists, for example, resulted in a final sample of only 69 participants, which limits the statistical power of our analyses. Despite these limitations, our study does provide novel information about the relationship between the challenges educators face when integrating MLE in classes, their confidence doing so, and their actual integration of MLE. Future research should continue to investigate these types of relationships by collecting data from a larger, more diverse (e.g., SES, race, region) sample of educators. Indeed, research has indicated that the racial composition of schools, as well as the SES level of students influence teacher integration of MLE (e.g., Baker et al., 2022). Additionally, we created a scale of challenges based on previous research, yet there are most likely additional challenges faced by teachers that were not included in our measure. Collecting open-ended and qualitative data on MLE challenges faced by educators can contribute to and expand our CIML scale. Ideally, further development of the CIML scale could result in a measure that may be used consistently across studies, and even within assessment practices of school districts, to address challenges teachers face integrating MLE. Furthermore, although we found significant relationships between variables of interest, we cannot argue causation among the related variables. Additional research in this area should focus on longitudinal assessment, to better understand causal relationships between these limiting factors and the integration of MLE.

Conclusion

Despite the limits of our study, this research contributes to the developing body of research on the challenges educators face when integrating MLE. Our findings suggest that external challenges, largely outside of educators' control, can significantly limit MLE integration in secondary classes. This speaks to a need for a continued push toward MLE legislation and administrative support for educators to include MLE in their classes. Additionally, educator participation in MLE training and educational opportunities may increase teachers' confidence incorporating MLE, which may lead to increasing engagement in MLE curriculum integration.

As young people continue to spend much of their time on social media,

surfing the Internet, and engaging with a variety of media content, it is imperative that they are equipped with knowledge about media and skills to critically navigate, produce, and interpret media content. Media literacy education in the context of primary, secondary, and post-secondary classes can work to achieve that goal. Uncovering and understanding the challenges that prevent MLE integration in school curriculum can assist in developing strategies to alleviate these challenges for teachers, which can then increase the incorporation of MLE in educational contexts and ultimately provide more MLE learning opportunities for youth.

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