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RESEARCH ARTICLE

Evaluation and Approval Constructs For K-12 Online and Blended Courses and Providers

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Public Act 60 (2013) of the Michigan Legislature tasked Michigan Virtual University, through its Michigan Virtual Learning Research Institute, to "research, develop, and recommend annually to the department criteria by which cyber schools and online course providers should be monitored and evaluated to ensure a quality education for their pupils." This study provides an overview of existing models of cyber and online evaluation, both of which serve to inform the forthcoming recommendations. In this study, the authors review existing literature related to the evaluation of online and blended learning programs and providers, and identify five dimensions for course and provider evaluation and approval.

Keywords: K-12 online and blended learning; virtual schooling; cyber schooling

In 2010, the Michigan legislature lifted the ban it had imposed on cyber charter schools (Michigan Public Act No. 227, 2011). Two years later, the legislature lifted restrictions it had placed upon the growth of cyber charter schools and created policies intended to further facilitate the growth of online learning (Michigan Public Act No. 129, 2012). However, the growth of K-12 online learning–in Michigan and elsewhere–has outpaced the availability of research useful in judging its quality (Barbour, 2013; Cavanaugh, Barbour, & Clark, 2009).

With the passage of Michigan Public Act 201 during the 2012 legislative session[1], the *Michigan Virtual University* was tasked with the creation of a Center for Online Learning Research and Innovation, since renamed the *Michigan Virtual Learning Research Institute*. The

[1] http://www.legislature.mi.gov/documents/2011-2012/publicact/pdf/2012-PA-0201.pdf

purpose of the Institute was to "support and accelerate innovation in education…. [and] provide leadership for this state's system of online and blended learning education…" (Michigan Public Act § No. 201, 2012, pp. 43-44). One of the specific tasks the legislature outlined for this new research center was to "research, develop, and recommend annually to the department criteria by which cyber schools and online course providers should be monitored and evaluated to ensure a quality education for their pupils" (p. 44).

The purpose of this study is to fulfill this objective by examining existing policies and practices related to the evaluation and approval of online and blended learning in the 50 US states, the results of which could be used to inform evaluation and approval practices in the State of Michigan. We begin this article with a review of the related literature into what is known about evaluating the quality of online and blended learning. This review is followed by a description of the study methodology. Results of the study are then presented that highlight key evaluation and approval policy constructs, and their prevalence in the 50 states is documented. The results of the case study are discussed and a brief analysis is provided. We conclude with a summary, along with outlining some implications for practice and recommendations for future research.

LITERATURE REVIEW

Several issues are apparent when examining the literature related to quality in K-12 online learning. The first is that there was little empirical research, and only a limited amount of descriptive research to guide our discussion. The literature that was available had been largely produced by policy and advocacy organizations (Fang, 2011; Woodard, 2012). The second issue was that these policy and advocacy organizations were often perceived as promoting ideas and policies that were based upon an ideological agenda (Ravitch, 2010, 2013). Research on quality online programs is largely limited to comparisons of student performance in online environments against brick-and-mortar environments. It is worth noting that the majority–although not all–of this research literature has found that supplemental (i.e., part-time) K-12 online learning students perform as well or slightly better than their brick-and-mortar counterparts (Cavanaugh, 2001; Cavanaugh, Gillan, Kromrey, Hess, & Blomeyer, 2004; Means, Toyama, Murphy, Bakia, & Jones, 2010; Means, Toyama, Murphy, & Bakia, 2013).

Aside from research, there have been a number of policy documents released speaking to the quality of online programs. For example, in addition to its standards addressing courses, the International Association for K-12 Online Learning (iNACOL) has produced the *National Standards for Quality Online Programs* (Pape, Wicks, Brown, & Dickson, 2008). These standards were designed to provide K-12 online learning organizations and stakeholders such as lawmakers and policymakers "with a set of quality guidelines for online program leadership, instruction, content, support services, and evaluation" (p. 4). In October 2012, iNACOL released their *Measuring Quality from Inputs to Outcomes: Creating Student Learning Performance Metrics and Quality Assurance for Online Schools* (Patrick, Edwards, Wicks, & Watson, 2012). Following up on their earlier policy recommendations, the authors suggested that policymakers should focus on student outcomes such as proficiency, student growth, graduation rate, college and career readiness and closing the achievement gap. Interestingly, the authors recommended additional measures for full-time online schools that included: "proficiency, individual student growth along a trajectory, graduation rates, college and career readiness, closing the achievement

gap, and fidelity to a student's academic goal" (p. 14). The authors also recommended that policymakers use multiple measures to determine the quality of full-time online programs.

The most common approach to assessing quality in K-12 online learning is evaluation of course content. This method of evaluation has a history almost as long at K-12 online learning itself. Early K-12 online learning initiatives, such as the Virtual High School Global Consortium and Electronic Classroom of Tomorrow, developed design standards that were used in the development of their online course content (e.g., Zucker & Kozma, 2003). In 2007, iNACOL released the first edition of their *National Standards for Quality Online Courses*. "As a result of the research review, [iNACOL chose] to fully endorse the work of the Southern Regional Education Board's *Quality Online Course Standards* as a comprehensive set of criteria…. with an additional rubric for the inclusion of 21st century skills" (North American Council for Online Learning, 2007, p. 2). The reality was that the review conducted was not of the existing research on effective practices or quality online course design, but a review of existing online course design standards. To date, these standards have yet to be validated by empirical research; however, several states have adopted the iNACOL *National Standards for Quality Online Courses* for use in measuring the quality of K-12 online learning. In 2011, iNACOL released an updated version of online course design standards, based on the work of California Learning Resource Network and the Texas Education Agency's Texas Virtual School Network. The second edition *National Standards for Quality Online Courses* includes a more developed rubric (iNACOL, 2011), which can be used to evaluate the quality of online course content. At present, the only research-based initiative examining the quality of online course content has been the Quality Matters program. This proprietary program provided a review process based on 40 specific standards that were grouped under eight general standards (Legon & Runyon, 2007; Shattuck, 2007). However, with an annual fee many K-12 programs are unable to afford the financial commitment to access this validated instrument.

The most direct guidance for lawmakers on the issue of evaluating online and blended learning programs was presented by the National Education Policy Center as a part of their "Online K-12 Schooling in the U.S." initiative that resulted in two publications. In the first report, Glass and Welner (2011) described many of the policy issues facing K-12 online learning programs. The authors also made policy recommendations related to the authentication of student work, fiscal and instructional regulations, audits, and accreditation. Publication of this policy brief was accompanied by the publication of *Model Legislation Related to Online Learning Opportunities for Students in Public Elementary and Secondary Education Schools* (Bathon, 2011). This model included 13 pages of specific legislative language that was prepared based on the existing legislation in all 50 states to cover "the issues of systemic integrity: reliability of budgets, authentication of student work, quality of instruction, fidelity of the virtual teaching staff, and clear, yet highly developed, state regulations" (p. 1). What is most interesting about this model legislation was that it was primarily based on existing legislative examples from states that included Arizona, Colorado, Florida, Idaho, Maine, Montana, Nebraska, Pennsylvania, South Carolina, Tennessee, Washington, and Wisconsin.

METHODOLOGY

The purpose of this case study was to examine existing policies and practices related to the evaluation of online learning in the United States. This general purpose led to the following research questions:

1. What are individual state policies and practices related to initial online learning approval?
2. What are individual state policies and practices related to on-going online learning evaluation?

To address these research questions, a case study methodology was selected.

Case study methodology is useful in investigating a phenomenon within its own context, and where the boundaries between the phenomenon and the context are unclear (Yin, 2003). Patton (2002) indicated that a single case study typically consists of smaller cases that provide the stories of the larger case. Similarly, Yin (2003) referred to these smaller cases as individual units of analysis that were embedded within the case. In this instance, the individual states constituted the smaller cases–or embedded units of analysis–while the entire United States was the larger case in question.

Our primary research method was document analysis. Our data collection began with a review from March 2013 through August 2013 of existing documents available online, as informed by the methods of Bowen (2009). The first stage of data collection began with a review of recent *Keeping Pace with K-12 Online and Blended Learning* (i.e., Watson, Murin, Vashaw, Gemin, & Rapp, 2012; 2013) and *Virtual Schools in the U.S. 2013: Politics, Performance, Policy, and Research Evidence* (Molnar, Miron, Huerta, King Rice, Cuban, Horvitz, Gulosino, Rankin, & Shafer, 2013), which was particularly useful in identifying specific legislation and policy documents in each of the fifty states that we wished to include in our data set.

We followed up on our initial review of these documents with a web-based survey from July to September 2013 administered to Department of Education officials that was only completed by nine states (see Appendix A for a copy of the instrument). The survey was developed based on the initial analysis of *Keeping Pace* and *Virtual Schools in the U.S.* reports that identified various dimensions of approval and evaluation. The purpose of this survey was to collect additional data that directly addressed our research questions and identify additional documentation that could be included in the data set (Marshall & Rossman, 1999). For states where the officials were unresponsive, we attempted to complete the survey through direct telephone contact in October 2013 and were able to obtain responses from an additional five states. While a limited number of states completed the survey (in either format), we obtained most of the data required to complete our analysis through the systematic review of extant documents (i.e., specific legislation and policy documents) posted to state education agency and other official state websites.

The data were analyzed using content document analysis (Hodder, 2000). Data were coded by a single member of the research team using an open coding process. Open coding was designed "to uncover, name, and develop concepts, we must open up the text and expose the thoughts, ideas, and meanings contained therein" (Strauss & Corbin, 1990, p. 102). Codes were generated directly from the data, through the lens of the two research questions (i.e., approval and evaluation of online courses and online programs). The full research team discussed and

modified the codes until consensus agreement was reached. The coded data allowed the research team to identify and develop an understanding of the data based on close and multiple examinations of the data (Emerson, Fretz, & Shaw, 1995).

RESULTS

In conducting the state policy analysis and attempting to understand what states must consider when looking to implement new approval measures or critically evaluate existing measures, five dimensions of consideration emerged (see Table 1). The first dimension was focused on the level of evaluation and approval. Some states evaluated and approved providers and this approval was appropriate for all of their operations, while other states approved individual courses. The second dimension was focused on whether the approval–regardless of the type of approval–was optional or required by the state. The third dimension was focused on the geographic reach of the evaluation and the approval; where some states focused on single districts, other states focused on multiple districts (i.e., allowing for statewide approval), and more states a combination of the two. The fourth dimension focused on whether the provider or course was offered in a completely online format or a blended format. The final dimension examined the timing of the evaluation and approval process, specifically whether it was conducted only when a provider or course first began operating in the state, annually, or some combination of the two options.

TABLE 1
Dimensions of Approval and Evaluation

Level of Evaluation and Approval		
Provider Level		*Course Level*
Approval based on evaluation and determination of quality of online provider or program.		Approval required for every online course offered regardless of provider approval.
Approval Requirement		
Optional Approval		*Required Approval*
Approval not mandated by state but recognized and required by higher education institutions.		Approval mandated by state, sometimes tied to funding.
Geographic Reach		
Multi-District	*Multi-District & Single-District*	*Single-District*
Specific approval requirements for providers enrolling a certain threshold percentage of students outside their district.	Identical approval processes for multi-district and single-district providers.	Specific approval requirements for providers enrolling students only in their district or enrolling outside their district under a certain threshold.
Mode of Instruction		
Fully Online		*Blended*
Specific approval requirements for online courses that are delivered fully online with little to no face-to-face contact between instructors and students.		Specific approval requirements for courses that are delivered online with a certain threshold of content delivered face-to-face.
Evaluation and Approval Procedures		
Front-End Approval	*Front-End Approval & Ongoing Monitoring*	*Annual Monitoring / Audits*
Initial approval is singular requirement for online providers.	Providers are required to be approved prior to offering any courses and must undergo annual performance evaluations.	Providers are not required to undergo initial approval but must submit annual reports or undergo annual audits.

While the dimensions of approval and evaluation highlighted unique models, many states followed similar approval and evaluation processes. As is evident in Table 2, online course review is less commonly mandated than provider review and approval.

TABLE 2
Course and Provider Approval by State

State	Front End Course Provider Approval	Front End Course Approval	Front End Full-Time Program/ Charter School Approval	Ongoing Performance Evaluation/ Reporting[2]	State Level Optional Accreditation	No State Mandated Approval or Evaluation
AL						X
AK	X					
AZ	X		X	X		
AR	X	X	X			
CA					X	X
CO	X		X			
CT						X
DC						X
DE						X
FL	X	X	X			
GA	X		X		X	
HI		X	X			
ID	X		X	?		
IL	X					
IN			X			
IA				X		
KS	X		X	X		
KY						X
LA			X			
ME	X		X			
MD		X				
MA			X			
MI			X			
MN	X		X	X		
MS		X	X			
MO						
MT	X					

[2] This refers to annual monitoring/audits beyond those required of all public or charter schools

NE						X
NV	X	X	X			
NH			X			
NJ	X		X			
NM			X			
NY						X
NC	X		X			
ND	X	X				
OH	X	X	X			
OK		X	X			
OR			X			
PA			X			
RI			X			
SC			X			
SD	X	X				
State						
TN	X		X	X		
TX	X	X	X			
UT	X		X			
VT			X			X
VA	X		X			
WA	X		X			
WV	X					
WI	X		X			
WY	X	X	X	X		
Total	26	12	34	6	2	9

It should be noted that the table is intended only to provide a high-level view of national approval and evaluation policies. How each column played out varied greatly from state to state, so while two states may both mandated front-end, full-time approval what that actually looked like might be very different. Having said that, 41 states had one or more approval or evaluation processes in place.

Only 12 states required all online courses to be approved. Such reviews were typically carried out by the state education agency or an entity designated by the state. In some states, such as Montana and South Dakota, the state education agency had established criteria for online courses, and reviewed all online courses against those criteria. Other states, such as Oregon and Oklahoma, required online courses to conform to local school board policies and local online

course guidelines. Further, California and Georgia offered an optional seal of approval or accreditation for courses that undergo a voluntary review process.

A total of 26 states required front end approval of course providers. Provider approval processes ranged from simple to complex. For instance, any district in Arkansas could offer an online learning program by filing the appropriate paperwork, whereas providers in Florida must be approved by and according to criteria established by the Florida Department of Education. However, some states–such as Alabama–restricted all online course offerings to the state online school, and prohibited any additional providers. States that did allow additional providers typically either approved a district or a program provider working through the district to offer courses, either within their district or statewide. For example, in Arizona any district or charter school, once approved, could serve any student in the state.

Approval of full-time online program providers was by far the most common legislatively mandated type of online provider approval. Thirty-four states required initial approval of full-time online program providers. However, only five states required both front end approval for full-time online schools and ongoing performance evaluation and/or reporting that went beyond the annual performance reporting requirements for all public and charter schools in that state. For example, Kansas required all online schools and programs that served full-time students to be registered with the state and participate in annual audits to receive state funding. Only one state (i.e., Iowa) required ongoing performance evaluation and/or reporting, but not front-end approval. In fact, Iowa law mandated that the Iowa Department of Education visit the state's two full-time online schools, and report to the legislature on characteristics of the schools (i.e., performance, retention rates, etc.).

Clearly there was a great deal of variation between how states choose to address online provider and course approval and evaluation. As indicated above, even in states that seemed to have similar models there was incredible variation as each dimension identified in Table 1 produce considerable differences even among seemingly similar processes. Finally, only nine states had no mandated approval or evaluation processes for online courses or providers.

DISCUSSION

As the results demonstrate, the majority of states have limited formal measures to determine whether an online course or an online learning provider is offering a quality learning opportunity to their students. The preponderance of research-based evidence indicates that the majority of full-time online schools are failing their students in terms of student performance and growth (Center for Research on Education Outcomes, 2011; Colorado Department of Education, 2006; Hubbard & Mitchell, 2011; Joint Legislative Audit Committee, 2010; Miron & Urschel, 2012; Office of the Legislative Auditor, 2011; Ryman & Kossan, 2011; Woodward, Raymond, Chirbus, Gonzales, Negassi, Snow, & Van Donge, 2015; Zimmer, Gill, Booker, Lavertu, Sass, & Witte, 2009). Woodward et al. (2015) found that some online charter schools demonstrated student growth, but that this is "currently the exception rather than the rule" (p. 63). A lack of quality control is likely a leading cause of the problems with student performance and growth in these online programs.

Interestingly, providers of full-time online schooling often argue that many of their students enroll in online learning one or more grade levels behind and that this accounts for their poor academic performance (Saul, 2011). Some of these providers have also argued that growth

models are a more accurate way to measure student performance for those enrolled in full-time online learning programs (K12, Inc., 2012, 2013). At present, there are a few states that are performing this more sophisticated analysis of student performance. For example, the State of Colorado has an online database that compares the student growth trajectories of students in full-time online and brick-and mortar schools[3]. The student growth trajectory data from the State of Colorado indicate that full-time online schools still lag behind their brick-and-mortar counterparts–with the exception of a few smaller, geographically focused full-time online learning programs. Evidence of this can be seen in Figure 1, a screenshot depicting full-time online schools in blue, with size indicated by bubble size, and other schools in gray.

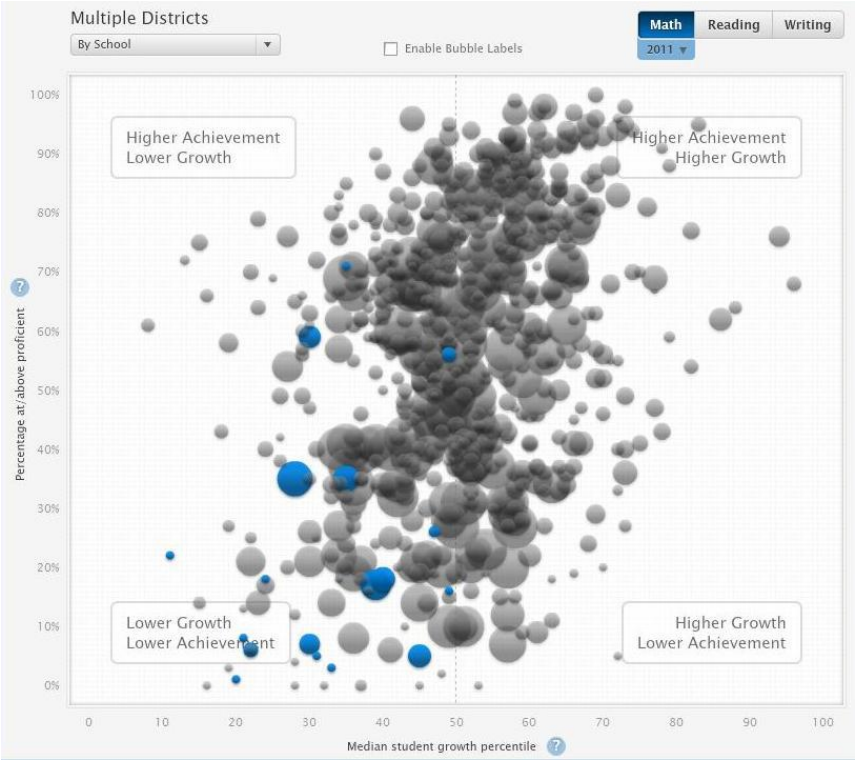

Figure 1. Student growth by school type, full-time online and other public schools in mathematics, Colorado Department of Education Schoolview, 2012.

Some of these smaller, geographically focused full-time online learning programs utilize a blended or hybrid learning model of delivery (Stalker & Horn, 2012).

Based on our findings, there were no states that had fully developed regulations specific to blended or hybrid programs–most of which utilize a method of instructional delivery that is neither fully face-to-face or fully online. However, over the past two years, national surveys have identified blended learning as the fastest growing segment of the K-12 online and blended learning field (Stalker & Horn, 2012; Watson et al., 2012). Further, a recent international survey found that full-time K-12 online learning was virtually nonexistent outside of the United States and Canada (Barbour, Brown, Hasler Waters, Hoey, Hunt, Kennedy, Ounsworth, Powell, &

[3] http://www.schoolview.org/ColoradoGrowthModel.asp

Trimm, 2011). In other nations, supplemental online courses, blended learning, and technology integration into the K-12 classroom were far more prevalent. Clark and Barbour (2015) raised questions about whether full-time K-12 online learning is a viable path long-term in the United States. Based on several case studies presented in their book, the authors assert that blended learning will continue to grow in importance in the United States and around the world. Additionally, the physical presence that these blended schools maintain often allow them to operate under the same guidelines as traditional brick-and-mortar schools (Molnar, Huerta, Barbour, Miron, Shafer, & Gulosino, 2015), with some exceptions for things like seat time requirements. Given the fact that blended learning programs are growing, coupled with the substandard performance of many fully online schools, an exploration to determine whether blended schools have better student outcomes might serve to inform state policies.

Study of practice should include research on how state-level policy changes impact student academic growth. In their research on online charter schools, Woodward et al. (2015) found evidence that some state-level policy changes had a significant relationship to positive changes in student growth. They saw this as a "critical area for future study" (p. 62). The present study also supports this need.

CONCLUSIONS

In this article, we described how five dimensions of state-level approval and evaluation of online and blended learning programs emerged from our research, and explored how they apply in the 50 U.S. states. We found that state policies provide limited formal measures of online learning quality, although recent research has suggested relatively weak student performance and growth in fully online schools. The growth in blended schools is a major trend that may address many of the concerns raised about full-time online schools, particularly the issue of student performance. In a blended charter school, the students must attend face-to-face at least part of the time. Most students live in the local area, making active parental involvement and student-parent-teacher communication more feasible. We also found a relative lack of blended learning policy in the states despite the rapid growth in such programs. In all, state policy in online and blended learning appears to be lagging behind school practice.

Finally, this study was designed as a simple case study to discover the current state of policy at a given time. As the annual *Keeping Pace with K-12 Online and Blended Learning* and *Virtual Schools in the U.S.: Politics, Performance, Policy, and Research Evidence* reports have indicated, the legislative reality for most jurisdictions changes on a regular basis when it comes to K-12 online and blended learning (Molnar et al., 2015; Watson et al., 2014). These annual surveys of activity are useful in identifying specific changes; to date there had not been an examination of the larger trends that these individual, state-by-state changes represented. But like these annual surveys, this case study does report the state of these legislative trends at a specific point in time. As such, replication of this initial study is recommended. Additionally, we found a great deal of variation in how states were implementing policies related to on several of the online provider and course approval and evaluation dimensions. Research that examines exactly how individual states are undertaking the process of initial course provider approval or on-going online course evaluation, as examples of just two of the dimensions, could generate detailed models of existing practices – which could then be explored in an effort to develop promising or best practices related to online provider and course approval and evaluation.

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APPENDIX A

Web-Based & Telephone Survey Instrument

Interviewee's name:
Interviewee's agency/organization:

1. Does your state have an evaluation/approval process for individual K-12 online COURSES?

2. What kind of evaluation/approval processes does your state have for COURSES?
    a. A 'front end' evaluation/approval process BEFORE the course is offered?
    b. Ongoing evaluation of performance or quality checks WHILE the course is being offered?
    c. An optional in-depth review process that results in a higher level of course approval, IN ADDITION TO the 'front end' course approval?
    ADDITIONAL COMMENTS:

3. Does your state have an evaluation/approval process for full-time K-12 online learning PROGRAMS?

4. What kind of evaluation/approval processes does your state have for full-time online learning PROGRAMS?
    a. A 'front end' evaluation/approval process BEFORE the course is offered?
    b. Ongoing evaluation of performance or quality checks WHILE the course is being offered?
    c. An optional in-depth review process that results in a higher level of course approval, IN ADDITION TO the 'front end' course approval?
    ADDITIONAL COMMENTS:

5. Does your state have an evaluation/approval process for online learning PROVIDERS?

6. What kind of evaluation/approval processes does your state have for online learning PROVIDERS (other than the processes for courses and programs cited above)?
    a. A 'front end' evaluation/approval process BEFORE the course is offered?
    b. Ongoing evaluation of performance or quality checks WHILE the course is being offered?
    c. An optional in-depth review process that results in a higher level of course approval, IN ADDITION TO the 'front end' course approval?
    ADDITIONAL COMMENTS:

7. What state agencies or state-recognized entities are involved in the state's evaluation/approval process? (CHECK ALL THAT APPLY)
    a. State education agency
    b. Regional education agency
    c. University

d. Charter School Commission
e. Other (please specify in COMMENTS)
COMMENTS:

8. IN ADDITION to the evaluation/approval processes you have in place now, is your state CONSIDERING adding evaluation/approval processes for any of the following in the near future?
    a. Individual K-12 online courses
    b. Full-time K-12 online learning programs
    c. K-12 online learning providers (separate from the approval processes for courses & programs above)

COMMENTS: