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U.S. Virtual School Trial Period and Course Completion Policy Study

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Abstract: Variations in the policies used by virtual schools in relation to course enrollment trial periods and course completion impact the comparability of attrition statistics. We contacted 159 U.S. virtual schools and received responses from 86 schools, a response rate of 54%. 68.6% of respondents had trial periods that varied from one day to 185 days. Course completion definitions varied considerably from remaining in the course irrespective of the final grade to receiving an A-, considered a passing grade. These differences were examined based upon geographical region and school type. We recommend virtual schools adopt multiple measures for calculating student attrition to allow meaningful comparisons between virtual and also with brick and mortar schools.

Introduction

There has been a rapid proliferation of virtual schools throughout the United States. In 2007, 42 states had online programs (Watson & Ryan, 2007), up from 21 states just two years earlier (Watson & Kalmon, 2005). One challenge of such rapid growth is adopting common metrics used across virtual schools to measure quality. Currently, no common metric exists across virtual schools to calculate course completion rates (Pape, Revenaugh, Watson, & Wicks, 2006; Smith, Clark, & Blomeyer, 2005). This is significant since completion rates are a key quality indicator for virtual schools (Blomeyer & Dawson, 2005).

Several factors affect course completion rates. While many are directly related to the student and the learning environment (Rice, 2006), administrative policies unique to virtual schools can affect course completion rates. Policies that determine when and how students are counted in the official course completion rates can affect the outcome measure (Roblyer, 2006).

The purpose of this study was to explore the policy variations in how U.S. virtual schools calculated completion rates. Specifically, this study sought to answer the following research questions.

1. What are the trial period policies for US virtual schools?
    a. How much variability exists across different types of virtual schools and regions of the country?
2. How do US virtual schools define course completions?
    a. How much variability exists across different types of virtual schools and regions of the country?

We used Clark's (2001) definition of a virtual school as "a state approved and/or regionally accredited school that offers secondary credit courses through distance learning methods that include Internet-based delivery" (p .i) to guide our study.

Review of Literature

In virtual school settings, student attrition is believed to be a significant problem (Carr, 2000; Rice, 2006). It is estimated that attrition rates range between 12%-40% (Lary, 2002) and in some cases may even be as high as 50% (Rice, 2006). These estimates vary greatly due to differences in the age of the program, funding, instructional quality, teacher staffing, technical support, and the diversity of the student body (Roblyer, 2006). Another contributing factor is the lack of a commonly accepted metric for calculating student attrition. While most virtual schools calculate student attrition, no common criteria exist (Pape et al., 2006; Smith et al., 2005). A student

completing a course in one school may be a non-completer in another. Varying metrics make it impossible to compare attrition rates between virtual schools and also make it difficult to compare attrition rates between virtual schools and brick-and-mortar schools.

While attrition rates may be high, the seriousness of the problem might be masked by the policies adopted to determine when and how students are counted. Many schools have a trial period wherein students can withdraw from a course with no penalty. Long trial periods can act as a sifting mechanism when weaker students drop out, masking attrition rates for lower performing students. Virtual schools with generous trial periods would be able to report high retention rates because students who were struggling would have dropped out before the virtual school began counting them. This problem has been well documented in comparative studies examining student performance of virtual school students compared to brick-and-mortar students (Ballas & Belyk, 2000; Cavanuagh, et al., 2005; McLeod et al., 2005). In sum, retention figures across virtual schools vary since institutions begin counting students at different points in time.

The course completion rate calculations of Florida Virtual School (FLVS) provide one example of how a trial period can influence attrition/retention outcomes. In their 1999-2000 evaluation, Bigbie and McCarroll (2000) reported that FLVS had a 73.6% completion rate. According to FLVS policy, students had a 28-day "grace period" in which they could drop out of the program with no penalty (p. 133). Students who withdrew during this trial period were not considered part of the student body. However, when students who dropped out during the trial period were counted, the completion rate dropped to 53.5%. Subsequent FLVS public evaluations have not reported completion rates for both pre and post trial periods to allow for this kind of comparison.

Similarly, the definition of a course completion can also affect retention rates (Pape et al., 2006; Roblyer, 2006). A school that defines course completion as a student receiving a grade (i.e., A-F) will have a higher retention rate than a school that defines a course completion as a student receiving a passing grade (i.e., D- or better). Again, these variations make it difficult to compare retention rates and weaken the value of the outcome metric.

While numerous researchers have called for standardizing performance measures across virtual schools (Smith et al., 2005, Pape et al., 2006, Watson et al., 2006), there is limited research examining the extent of variation that exists in trial period policies and course completion definitions. Pape et al. (2006) conducted a small study comparing several outcome measures used at three virtual schools: Virtual High School Global Consortium, Illinois Virtual High School, and Connections Academy. Two of the three schools had trial periods of three and five weeks. There were also differences in course completion definitions across the schools. Beyond this study, we have not found other studies examining trial period policies and course completion definitions across US virtual schools. This study seeks to fill this gap in the body of research in K-12 online learning.

Method

We surveyed 159 schools using a combination of methods including email, fax, and telephone. Schools included in the sample were located using a variety of sources, since no comprehensive list exists. We included all of the state-led schools listed in the *Keeping Pace with K-12 Online Learning: A Review of State Level Policy and Practice* report (Watson & Ryan, 2007) and those listed on North America Council for Online Learning's (NACOL) *Online Learning National Clearinghouse for Online Programs* (see http://www.edgateway.net/cs/nacol/print/docs/437) as of November 2007. The accuracy of NACOL's list was questionable, as we found contact information dated, listings for schools that had closed, and vendors listed as schools.

The combined lists yielded 159 schools, all of which met Clark's (2001) definition of a virtual school. Virtual schools were categorized into a taxonomy outlined by Cavanuagh, Barbour, and Clark (2008) and grouped by region using Watson and Ryan's (2007) geographical classification. Table 1 identifies the schools sampled based on school type and geographical region.

Characteristics	Sample Size	% of Sample
School type		
Cyber Charter	34	21.1
For Profit	9	5.6

Multi-district / Consortium	11	6.8
Private	21	13.0
Single-district	49	30.4
State – led	24	14.9
University – led	11	6.8
Total	159	100
Region		
Central States	41	25.5
Northeastern States	18	11.2
Southeastern States	33	20.5
Western States	67	41.6
Total	159	100

Table 1: Demographic characteristics of schools sampled

Single-district and cyber charter schools accounted a little over 50% of the schools sampled compared to for profit schools that accounted for the smallest portion of the sample at 5.6%. Although Northeastern states have a high number of students and brick and mortar schools, they have fewer virtual schools and online learning policies compared to other regions in the U.S. (Watson & Ryan, 2006). Many states in the Northeastern region participate in Virtual High School, a large virtual school consortium, which draws students from 400 high schools in 29 states and 20 countries (Watson & Ryan, 2006). In Massachusetts, for example, 100 high schools have students attending the Virtual High School (Watson & Ryan, 2006). Moreover, it is also not surprising that the bulk of virtual schools sampled are from Western states, which have large rural populations. Traditionally, distance education was used by rural school districts as a means to provide students with access to college preparatory courses and qualified teachers otherwise inaccessible (Smith et al., 2005). Thus, while the sample might appear to be skewed, it may actually be reasonably representative of the U.S. virtual school landscape.

Data Collection and Analysis

We used survey methods to collect the data for this study. Specifically, we used electronic mail embedded with our survey questions to contact individual leaders at the institutions included in the sample. In an effort counter the effects of low response rates, we attempted to contact non-respondents a total of four times: twice by email, once by fax, and once by phone.

We analyzed the data using SPSS statistical software. Trial period lengths were measured by days. Data were examined using basic descriptive statistics, one-way ANOVAs, and cross tabulations.

Limitations

Six schools identified trial period lengths that varied based on the length of the semester. Summer terms typically had shorter trial periods than winter and spring semesters. When this was the case, we used the longer trial period in our data set. One school said it had an “indefinite” trial period. In this instance, we used the length of the school year for brick and mortar schools in the same school district to determine the trial period length. Also, several respondents did not consider their institution a “virtual school” despite sharing our definition of a virtual school. Further discussion by email revealed that these institutions do not consider themselves a virtual school, since they only offered a couple of courses online. These institutions considered schools that have full-time online programs, not supplemental online courses, virtual schools. In two instances, even after clarifying the definition we used in the study, participants refused to respond after their initial refusal to complete the survey because they did not consider themselves a virtual school. These schools were not used in the final sample set.

Results and Discussion

Of the 159 sampled, 86 schools responded to the survey. The response rate was 54.1% and varied based on school type and region. Table 2 illustrates respondents based on school type and geographical location.

Demographic Characteristics	Respondents	% of Respondents
School type		
Cyber Charter	16	18.6
For Profit	1	1.2
Multi District / Consortium	7	8.1
Private	12	14.0
Single District	26	30.2
State – led	16	18.6
University – led	8	9.3
Total	86	100
Region		
Central States	23	26.7
Northeastern States	8	9.3
Southeastern States	19	22.1
Western States	36	41.9
Total	86	100

Table 2: Frequency count of respondents based on school type and geographical region

Single district schools had the highest response rate and accounted for one third of the respondents. State-led and cyber charter schools followed each accounting for 18.6% of respondents. Western state schools accounted for almost 42% of the respondents, as was expected. While Central and Southeastern states were nearly evenly split and accounted for almost 50% of the respondents. Northeastern states had a significantly lower than expected response rate. As mentioned earlier, this is likely due to the fact that so many states in this region are members of Virtual High School, a large multi-state consortium based in Massachusetts (Watson & Ryan, 2006).

To determine the representativeness of the respondents, table 3 details the proportion of actual respondents, proportion in the original sample, and the difference between these two proportions by geographical region.

Region	% of Actual Respondents	% Sampled	% Difference
Central States	26.7	25.5	1.2
Northeastern States	9.3	11.2	-1.9
Southeastern States	22.1	20.5	1.6
Western States	41.9	41.6	.3

Table 3: Regional differences in respondents and total sample

The differences between the two proportions are small. Consequently, the study's findings are regionally representative of U.S. virtual schools.

Question 1: Trial period policies

68.6% of schools had a trial period of some length. Trial periods were a fairly common practice. There were subtle variations in the prevalence of trial period policies based on the type of virtual school and geographical location. All but one state-led school had a trial period of some length. Private and cyber charter schools were almost evenly split on the presence or absence of trial periods. Regionally, Northeastern states were least likely to have trial periods with only 28.6% compared to Southeastern states where 83.3% had trial period policies. Approximately 70% of Western and Central States had trial period policies.

There was significant variation in the lengths of trial period policies reported. Trial period length ranged from as little as one day to as long as 185 days. The mean number of days was 25.22 days while the median was 15 and the mode was 14. The standard deviation was 30.75. Table 4 identifies the frequency counts of the different trial period lengths.

Days	*n*	%
1	2	3.4
3	1	1.7
7	5	8.6
8	1	1.7
10	4	6.9
14	12	20.7
15	4	6.9
20	1	1.7
21	6	10.3
28	7	12.1
30	9	15.5
35	2	3.4
60	1	1.7
180	1	1.7
185	1	1.7
Total Count	58	100%

Table 4: Frequency of trial period length by days

Fourteen-day trial periods were the most common mode and when combined with 15-day trial periods accounted for 27.6% of the trial period policies. The next most frequent were 28- and 30-day trial periods, which accounted for another27.6% of the sample. Thus, two and four week trial periods accounted for a combined 55.2% of the trial periods. If accrediting bodies, policymakers, or virtual school coalitions attempt to standardize trial period lengths to enable comparisons, two or four week policies would likely meet less resistance than other trial period lengths based on their prevalence. There were several anomalies in trial periods presented by the data. There were two extreme outliers of 180 days and 185 days. When the mean, median, and mode were calculated excluding these outliers, the adjusted mean was significantly smaller, at 19.61 days, with a standard deviation of 11.06.

Two schools were missing from the data set. West Virginia Virtual School had a unique trial period policy in that the course provider determined it. In other words, West Virginia Virtual School served as a broker for a variety of contracted course providers, each of which might have had different trial period policies. Grigg's University and International Academy's, a private virtual school, trial period policy was that a student could withdraw at anytime so long as they had not started the course. These policies illustrated the great variety in trial period policies.

It is interesting to note what is driving administrators in determining their trial period policies. Though not the focus of our study, one school administrator revealed that her school's trial period recently changed from two weeks to four weeks to match the trial period length of another major virtual school. This was done in an effort boost the school's completion rates to make them appear on par with the rival institution. This logic for determining a trial period policy may explain why schools cluster around trial period lengths of two and four weeks. Virtual schools may be adopting the trial period policy of their nearest cyber competitor in an effort to attract or retain students. Future research could investigate the driving forces behind trial period policy length and adoption.

University, private, and state-led schools had on average longer trial periods than other types of virtual schools with median lengths of 30, 22, and 20.5 days respectively. In contrast, cyber charter, consortium, and single-district schools had between 14- and 15-day periods. However, a one-way ANOVA indicated that there was no significant difference between trial period lengths and virtual school type.

There were small differences in the trial period lengths for schools located in different geographical areas. Northeastern and Western region states tended to have slightly longer trial periods. However, a one-way ANOVA indicated that there was no statistically significant difference at p=.05 between trial period lengths based on geographical differences.

In summary, there was a wide range of trial period policy practices among virtual schools. These differences were not dependent on the type of virtual school, nor its geographical location. These findings compound the difficulty policy makers, schools, prospective students, and parents face when comparing completion rates to between brick and mortar schools and virtual schools.

Question 2: Course Completion Definitions

Eighty-four of the 86 schools provided qualitative definitions of a completion. These ranged from "remaining in the course regardless of the grade" to passing the course with an A- or better. Responses fell into three main categories: (1) completion of the course within the allotted time frame regardless of the grade received, (2) completion of the course within an allotted time frame with a passing grade, and (3) deferring judgment to the brick and mortar school the student physically attends. Within these main categories there were several more refined definitions. Table 5 illustrates the range of definitions as well as the frequency counts of each.

Definitions	***n***	**% of sample**
Final grade is irrelevant		
Remaining in the course for its duration regardless of the final grade received	16	19.0
Completing of all or the majority of the coursework and/or exam within the allotted timeframe regardless of the final grade received	11	13.0
Mastery of material (not defined as grade or percentage)	1	1.2
Final grade is determining factor		
Passing the course	37	44.0
Passing the course and passing the final	2	2.3
Completing four quarters with 60% or better	2	2.3
Passing the course with a D/64% or better	1	1.2
Passing the course with a C-/70% or better	6	7.1
Passing the course with a B-/80% or better	4	4.8
Passing the course with an A-/90% or better	1	1.2
Deferred judgment		
Brick and mortar school the student attends defines a course completion	3	3.6
Total	84	100%

Table 5: Frequency count of course completion definitions

Thirty-three percent defined a course completion as completing a course regardless of the grade received. In contrast, 62.9% used a more stringent definition of a passing grade to indicate a completion.

Some schools had unique factors contributing to how and whether to calculate course completions. While they have internal policies that govern completion calculations, many deferred judgment to the student's brick and mortar school.Other schools may not calculate course completion rates, particularly if the program is only for full-time students, as was the case with one full-time charter school surveyed.

The wide variation in how schools define a course completion has significant implications. First, as with trial period lengths, idiosyncratic policies for defining a course completion prevent lawmakers, researchers, parents, and students to make meaningful comparisons among virtual school attrition/retention rates. If all other variables influencing student academic success were equal, schools that adopted less stringent definitions of a course completion would have lower attrition rates than virtual schools with more stringent definitions of a completion. Thus, attrition rates can be manipulated by factors unrelated to student learning and success. Second, if course completion rates are to be used as an indicator of the success and health of a course as Blomeyer and Dawson (2005)

suggest, then counting failing students in this statistic is illogical and counterproductive. A third of the schools counted students as successfully completing a course regardless of the grade or effort that students put into the course. A student could sign up, never officially withdraw, but mentally check out after the first week and contribute to a higher course completion rate. This practice pollutes the metric rendering it useless as an indicator of the quality of the course, teaching, and instruction.

To examine the relationship between course completion definitions and school type and geographical location, we ran a cross tabulation and Chi Square Test for Independence with p=.05. This test indicated no significant relationships between course completion policies and types of virtual schools and the geographical location of the schools.

However, we further investigated these relationships by recoding course completion definitions into two groups. Group one consisted of schools that defined a course completion where the final grade was irrelevant. Group two consisted of schools where a passing grade ($\geq$ 60%) was required. Table 9 illustrates the frequency counts of these two groups based on virtual school type and geographical region.

A cross tabulation and Chi Square Test for Independence with p=.05 indicated that there was no significant relationship between group one and two based on the geographical location. Though there was a significant relationship between the school type and the relevance of the grade. However, the presence of categories of less than five cases in each cell rendered the significance of the relationship suspect. We regrouped school types to examine state-led schools compared to all other school types to maximize the contrast and found that there was a significant difference between the two groups. Future research could examine why state schools behave differently from other school types in terms of more lenient policies towards defining successful course completions.

Conclusions and Implications

There are several implications that arise from this study. The significant variation in trial period length and course completion definitions gave weight to the call to standardize course completion metrics (Smith et al., 2005; Pape et al., 2006; Watson & Ryan, 2007). Though schools can have their internal policies for calculating course completions, for statistical and reporting purposes, all virtual schools should be required to start counting students at the same time and in the same manner. Ideally, when and how students are counted ought to be similar to how brick and mortar schools calculate course completions, thus allowing parents, prospective students, researchers, and legislators the ability to compare virtual school attrition rates with other virtual school and brick and mortar school completion rates. Since there was no statistically significant difference in trial period and course completion policies by geographical location and only state schools were unique in completion definitions, regional accrediting bodies ought to be able to more easily agree on a single, nationwide trial period length and course completion definition to facilitate meaningful comparisons.

To reinstitute course completion rates a quality indicator, virtual schools should abandon the practice of including failing students in the statistic. Accrediting bodies or legislatures could mandate this change in practice. Unless virtual schools are required to this, there are no incentives for schools to change.

Having established that trial periods are a common practice among virtual schools, future researchers can examine how many and what type of students are withdrawing during this trial period and how this compares to the types of students who remain in the course beyond the trial period. This is a meaningful research question as it speaks to the question of who online learning is actually serving. Findings from such a study could help guide practitioners in developing instructional supports that serve those students who struggle in online learning environments.

In sum, our study examined the variation in trial period and course completion policies—two policy factors that affect course completion rates. We found that trial periods are a fairly common practice among virtual schools and vary significantly in length. We also found that the majority of schools define a successful course completion as passing the course. Though there was wide variation in what percentage constituted a “passing grade.” The consequence of these policy variations is that it is impossible to compare completion rates between virtual and also with brick and mortar schools. In order to make course completion rates meaningful again, a standardized way for calculating this metric needs to be established and adopted throughout the virtual school community.

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