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MANAGEMENT STUDENTS' ATTITUDE TOWARDS DIFFERENT KINDS OF EXAM FORMAT: A CASE FROM A UNIVERSITY IN NORWAY

Leiv Opstad[i]
Western Norway University of Applied Science,
Norway

Abstract:
The exam is an important tool for learning and measuring students' knowledge and competence. However, there are no standard answers as to how exams are best suited to ensure this. There is considerable variation in students' preferences for different exam types. In this study, the focus is on students' attitudes towards the choice of exam type. This survey features management students from Norway, who study for a master's degree in order to pursue a career in the public sector. The results show that students are well motivated to learn, but they are sensitive to the choice of exam type. This affects effort, motivation, and expected success. There are different views on the types of exams that are perceived to be fair. The oral exam stands out in particular, as female students have great anxiety in relation to this form of exam.

Keywords: assessment evaluation, students' attitudes, exam format, management students

1. Introduction

Assessment and grades are important parts of higher education. COVID-19 and access to new technology, not least the Internet, mean that many schools are considering changing the way they teach, and not least how students are evaluated.

The Internet has led to new opportunities to teach without students being physically present on campus. It creates new possibilities, but also challenges (Romeo Jr et al., 2022). The students are not a homogeneous group. There are large individual differences in preferences and views on teaching methods and exams (Opstad, 2022). Students are divided in their view of digital readings in relation to traditional teaching and also in terms of which exam forms they think work best, and which provide the best learning outcomes (Bengtsson, 2019; Opstad, 2020a). The choice of exam can have a major impact on the ranking of the students (Opstad & Pettersen, 2022).

[i] Correspondence: email ltop@hvl.no

It is important to have an administrative strategy in order to increase motivation and improve student achievement (Denis & Mudulia, 2019). The purpose of this article is to investigate attitudes and preferences among adult management students. Among the student cohort, there are people who have many years of experience in working life over 30 years, for instance, and who want an experience-based master's degree. The programme is combined with work, and is based on teaching twice a month with each session lasting two days. The letter grade means less for these students than for undergraduates. A home-based exam is usually arranged for this group of students, and this is partially combined with an oral exam. Mapping the views of this type of student is of great interest to the study planner. This article will attempt to account for this.

2. Literature review

Previous research shows students adapt their behaviour and learning methods depending on how they are tested in the exam (Simkin & Kuechler, 2005). The six levels of learning approach connected to Bloom's taxonomy (Bloom, 1956) are widely used for assessing teaching and exam arrangements (Forehand, 2010). The lowest level is Knowledge (recalling learnt materials), the next is Comprehension (understanding what the materials mean), the third is Application (showing how to apply the learnt materials), the fourth is Analysis (understanding the structure), the fifth is Synthesis (analyses the materials different from the original one), and finally the highest level: Evaluation (the ability to judge the value of the materials). Being able to use what they have learnt in administration and management fields requires good reasoning and thinking by the students. Therefore, this requires performance at a higher level of Bloom's taxonomy (Athanasios et al., 2003).

One objection to multiple choice (MC) tests is that the questions are too simple. Therefore, the test is a weak indicator of students' understanding, and it does not capture the higher levels of Bloom's taxonomy (Chan & Kennedy, 2002). Moreover, MC does not give students the opportunity to express themselves in their own words, to argue for specific contexts, or to show creativity. Simkin and Kuechler (2005) suggest that it is easier with constructed response (CR) questions to capture higher levels of Bloom's taxonomy, but there are also opportunities with the help of MC to measure levels 2 and 3 of Bloom's taxonomy, for example. This depends on the design of the questions. Several researchers discuss how MC can be used for higher levels of learning (Zadi et al., 2018). Some authors argue that MC favours male students (Simkin & Kuechler, 2005).

The literature is mixed about the learning outcome of home-based (HB) tests compared to traditional CR tests. According to Rich (2011), students learn more and study harder when home-based assessments are applied. This also makes it possible to test a higher level of Bloom's taxonomy Lopéz et al., 2011). One can easily test higher-order thinking skills. Another advantage is that students are much less nervous about the exam (Bengtsson, 2019). Other researchers argue that HB assessment leads to less preparation for the exam. The exam candidates do not have to make an effort until they

see the questions, and then they can use the textbook and the Internet to answer the questions (Moore & Jensen, 2007). Another disadvantage of this form of examination is the difficulty of controlling whether everyone is acting honestly and not cheating.

The connection between anxiety, exams, and performance is a complex one (Zoller & Ben-Chain, 1990). High anxiety can lead a student to underperform in comparison to their academic skills. Females tend to be more nervous than males. Anxiety can become particularly strong in the context of oral tests (Ringeisen et al., 2019). This may explain, to a certain extent, why women do not want oral exams. Women favour home-based exams (Zoller & Ben-Chain, 1990).

The students' experience of the quality of the exam (how it is carried out, what is measured, the grading, etc.) is linked to the students' view of justice (Bazvand & Rasooli, 2022). The students' attitude towards fairness is also connected to how well they can adopt, and be familiar with, different teaching and assessment approaches. Students' experience of justice varies with the type of exam. It affects study behaviour. Students who find exams unfair have a higher dropout rate (Burger, 2017).

3. Methodology and sample

3.1 The sample

The survey sample consisted of students who took an experience-based master's degree in management at a university in Norway. The participants worked mainly in the public sector, in particular in the education and health sectors. The teaching took place in gatherings twice a month each of which lasts two days. It is set up to combine work and education. At one of these gatherings, students were asked to fill out a questionnaire (in the autumn of 2021). A total of 49 responded, constituting around 75 per cent of the participants in this programme. Despite COVID-19, a physical lecture was arranged, however, this was combined with an online presentation. Nevertheless, most students preferred to be physically present (see Table 1). These students are most accustomed to home exams with a deadline of one week (HBw). Most of the students were women (see Table 3).

3.2 Methodology

In this study, we investigate students' attitudes towards the following forms of exam: multiple choice, constructed response, oral tests, home-based exams (with a deadline of one week and one month), and group-based home exams. We study the following factors: effort, success, motivation, knowledge, anxiety, and fairness. In the questionnaire, a 7-point Likert scale was used, where 1 means disagree completely and 7 means agree completely). The data are analysed by comparison of mean values and analysis of correlation coefficients between the different variables.

We want to look at whether there are gender differences, and the extent to which the students' study behaviour is related to the different forms of examination.

Furthermore, to see if students expected success in one of the courses is linked to actual performance.

As there are few observations (under 50), the possibility of applying statistical tests is limited.

Table 1: Online or face-to-face teaching (7-point Likert scale, where 1 means disagree completely and 7 means agree completely)

Variable	Mean (N=49)	Min	Max	St. dev.
Preferences				
Face to face (My learning outcome is great because I am present at lectures)	6.12	2.0	7.0	1.15
Face-to-face versus digital (My learning outcome is better when I am physically present for the lectures than when I am watching them online)	5.93	2.0	7.0	1.32
Study at home (My learning outcome is great with online lectures and by studying at home)	2.34	1.0	5.0	1.07

4. Findings and discussion

If the study habits and behaviour are independent of the selected exam design, the students would have reported the same effort, motivation and so on, for the different kinds of tests. The correlation analyses show this is not the case (Tables 3–8). Students react differently depending on the selection of exam. Their behaviour is influenced by the choice of exam. This confirms the result from Table 2, and we will study the possible connections more closely.

Table 2: Descriptive statistics of students' attitudes to learning approach and assessments (Standard deviation in parentheses, 7-point Likert scale)

	MC	CR	OE	HBw	HBm	HBg
Effort	3.49 (1.78)	4.43 (1.46)	5.36 (1.47)	5.41 (1.21)	5.50 (1.41)	3.70 (1.30)
Success	4.17 (1.45)	3.77 (1.37)	4.16 (1.69)	5.06 (1.07)	5.15 (1.41)	4.05 (1.20)
Motivation	3.35 (1.75)	4.10 (1.40)	4.35 (1.62)	5.26 (1.20)	??	3.78 (1.47)
Knowledge	3.71 (1.56)	4.00 (1.48)	4.56 (1.89)	5.32 (1.27)	5.48 (1,54)	3.70 (1.30)
Anxiety	3.27 (1.80)	4.94 (1.64)	5.30 (2.06)	2.79 (1.58)	3.38 (1.94)	3.89 (1.85)
Fairness	3.31 (1.67)	3.87 (1.59)	4.04 (1.81)	5.30 (1.71)	5.44 (1.49)	3.00 (1.38)

Note: MC: Multiple choice exam, CR: Constructed response exam, Oral exam, HBw : Home-based exam with a one week time limit, HBm: Home-based exam with one month limit, Home-based exam within a group (2–3 participants) Effort: High effort with this assessment, Success: Success with this assessment,

Motivation: Strong motivation with assessment, Knowledge: This assessment will effectively test my knowledge, Anxiety: High anxiety with this assessment, Fairness: This assessment is fair.

4.1 Effort, motivation, knowledge, and success

These three factors are interconnected. If one believes that the exam effectively tests one's knowledge, this has a positive effect on learning. In turn, this will lead to more study. These factors are important instruments for achieving good performance (Stinebrickner & Stinebrickner, 2008). This result is in line with findings for undergraduate business students (Opstad, 2022). The students give home-based exams a high rating in this study. With average values above 5.0, this kind of assessment receives high support among students. It is also a form of exam that the students are familiar with. The difference in students' view of a week and a month's deadline is small.

The aim of many participants is to gain leadership positions in the public sector. Therefore, they are well motivated. The letter grade does not mean much to future careers, as long as one receives a diploma. For these types of students, more emphasis is placed on higher levels of learning (cf. Bloom's taxonomy). Hence, a home-based exam works well for them and may explain why these students rank HB higher than CR. This is also consistent with the findings of Rich (2011).

The correlation analyses show that attitudes towards oral exams and traditional school exams have many commonalities (Tables 3–6). There is a significant positive correlation between effort, motivation, and success. This suggests that the learning approach is quite similar for these two types of exams. Both types of exams are taken with closed textbooks, and to a large extent are graded the same way (Akimov & Malin, 2020).

Table 3: Effort—correlation between different kinds of assessment

	MC	CR	HBw	HBg	OE	HBm
MC	-					
CR	-.101	-				
HBw	-.122	.195	-			
HBg	.064	.038	-.058	-		
OE	-.126	.491***	.009	-.278*	-	
HBm	.226	.206	.006	.100	.091	-

***: P < 0.01, **: P< 0.05, *:P< 0.1

Table 4: Knowledge—correlation between different kinds of assessment

N=47	MC	CR	HBw	HBg	OE	HBm
MC	-					
CR	-.328**	-				
HBw	.055	.145	-			
HBg	.313*	.073	-.200	-		
OE	-.077	.159	-.006	.373**	-	
HBm	.408**	.021	.134	.394**	.390**	-

***: P < 0.01, **: P< 0.05, *:P< 0.1

Table 5: Success—correlation between different kinds of assessment

N=47	MC	CR	HBw	HBg	OE	HBm
MC	-					
CR	-.034	-				
HBw	.054	.392***	-			
HBg	.192	.125	-.238	-		
OE	.271	.400***	-.058	.216	-	
HBm	.367**	-.003	.086	.091	.410***	-

***: P < 0.01, **: P< 0.05, *:P< 0.

Table 6: Motivation—correlation between different kinds of assessment

N=47	MC	CR	HBw	HBg	OE	HBm
MC	-					
CR	.035	-				
HBw	.044	-.002	-			
HBg	.103	-.140	-.224	-		
OE	.159	.254*	-.272	.386***	-	
HBm	.197	-.118	-.184	.393***	.405***	-

***: P < 0.01, **: P< 0.05, *:P< 0.1

The two types of exams that receive the lowest scores are multiple choice assignment tests (MC) and home-based group exams (HBg). Many argue that MC measures more superficial learning, and does not capture higher forms of learning according to Bloom's taxonomy (Dufresne et al., 2002). MC and CR measure different factors of skill and learning (Kuechler & Simkin, 2010; Opstad, 2021a, 2021b). Students who want to qualify for leadership positions may find MC inadequate as an exam form, and this explains the low values. It also explains why students report a significant negative correlation between these two types of exams for the knowledge factor (Table 4).

Gibbs (2009) claims that the group exam has many advantages. Students learn to collaborate, and it can have a positive effect on the learning environment. However, it assumes that one has a method of giving individual grades. If there is a common grade and there is a significant difference in skills among the participants in each group, it creates some challenges. The desired effects may not be achieved. In other words, skilled students may become less motivated and reduce their efforts as they know that they may not get the desired reward when applying themselves in a group exam. This probably explains the low score in attitudes towards this type of exam. Despite the fact, the students in this survey are over the age of 30, and the level of the letter grade means little for their future careers, they are sensitive to the selected form of exam. In working life, teamwork is important. Despite this, the students find common grades for a group to be unattractive.

The correlations are low between the different variables. This can be interpreted as the students having different learning approaches to the exam forms. This confirms that students are affected by how they think they will be assessed (Biggs & Tang, 2007). For some variables, there are significant links, such as those between HBm and OE. One

explanation may be that students expect home exams with a deadline of one month to set high requirements for performance, and measure a higher level of learning (cf. Bloom's taxonomy).

4.2 Anxiety and Fairness

The findings here are in line with previous research. Many students are reluctant to take oral exam and traditional school exam. Hence, the high score in anxiety (see Table 2). As expected, there is a significant positive correlation between OE and CR (Table 7).

The students are much more comfortable with a home-based exam (see Table 2). This explains the positive link between the different types of home exams. One possible explanation for the significant positive correlation between OE and HBm is that both forms of the exam can be perceived as demanding, and it increases the anxiety level for some of the students even if there are substantial differences in the mean values. The average student is much more nervous when choosing OE or CR.

Table 7: Anxiety—correlation between different kinds of assessment

	MC	**CR**	**HBw**	**HBg**	**OE**	**HBm**
MC	-					
CR	-.014	-				
HBw	.095	-.039	-			
HBg	.198	.286*	.260*	-		
OE	.035	.371**	.073	.248	-	
HBm	.005	.117	.330**	.264*	.363**	-

***: P < 0.01, **: P< 0.05, *:P< 0.1

Table 8: Fairness—correlation between different kind of assessment

	MC	**CR**	**HBw**	**HBg**	**OE**	**HBm**
MC	-					
CR	-.088	-				
HBw	-.011	.159	-			
HBg	.139	-.006	-.233	-		
OE	.053	.276*	.046	.312**	-	
HBm	.261*	-.037	-.031	.071	.511***	-

***: P < 0.01, **: P< 0.05, *:P< 0.1

However, there is a positive correlation between OE and HBm (Table 7). One explanation might be that a home-based exam with one month limit is considered as quite demanding.

A problem with home-based exams is that they are perceived differently, and can tempt many students to unethical behaviour as there is little control (Bengtsson, 2019). This can lead to an unjustified ranking of the students based on knowledge and skills (Opstad & Pettersen, 2022). Management students do not experience this as a problem when choosing individual home-based exams. Furthermore, the possibility of cheating is probably less for this group than for students attending a standardised introductory

course at bachelor level. Common grades from the group test also receive a low score among the students. They find the common grade to be unfair, in that skilled students achieve the same grade as academically weak students. Thus, the students' grade and ranking are determined by which group they are in, and are not based on individual skills. Some students can be dissatisfied with the grade from the group assessment (Nordberg, 2008).

4.3 Gender differences

The literature reports a mixed picture about differences between the genders in terms of their attitude towards assessments format (Turner & Gibbs, 2010). Due to increased gender equality, the traditional gender gap has disappeared among business students in Norway (Opstad, 2020b). This is also the tendency in this study, but with one exception. The attitudes towards oral exams reveal a significant gender gap. Therefore, only data connected to OB are presented in this analysis (Table 9). Female students report that they want to study less, and are less motivated it captures to a lesser extent the knowledge than what the male fellow students report. Moreover, the women experience this exam as being less fair, and they expect to achieve less success. In line with the literature, female students are more nervous than male ones, but this gap is not significant.

The oral exam has many advantages (Huxham et al., 2012). This may be a good form of evaluation, especially for people applying for management positions. Some authors claim female students achieve better success in oral examinations than male ones (Mattheos et al., 2004). Although women tend to be more nervous about exams, there may not be gender gaps when it comes to learning approaches and attitudes towards oral exams. Even though female students are more negative towards oral examinations, this does not necessarily mean that there is a difference in performance. Blanch et al. (2008) claim that even though female students have less confidence when taking this kind of test, there is no gender gap in achievements.

One possible explanation for the finding is that this is education for future leaders, and the men in the survey are more extravert, confident, and familiar with oral communication to a far greater extent than their female counterparts.

Table 9: Gender difference mean value, oral based exam. Pairwise comparison of mean, T-Test

	Males (N=16)	**Females (N=29)**	**Diff.**	**St. dev.**	**Sig.**
Effort	5.94	5.03	.90	.44	.046**
Success	5.31	3.44	1.87	.46	.000***
Motivation	5.19	3.86	1.33	.48	.009***
Knowledge	5.71	3.70	2.01	.55	.001***
Anxiety	5.00	5.51	-.51	.64	.420
Fairness	5.06	3.41	1.65	.52	.003***

***: P < 0.01, **: P< 0.05, *:P< 0.

4.4 Expected success and actual success

The students in this survey completed the exam in organizational and management theory (with letter grades A through F). This was a home-based exam with few questions. As expected, the letter grade is significantly correlated with the expected success of this type of exam (HBw and HBm). However, it is worth noting that the correlation with expected performance is even stronger for the traditional school exam (CR).

Table 10: Correlation with expected success and letter grades in Management

	Grades Management [1)] **(HBw)**
MC	-.002
CR	.454***
HBw	.354**
HBg	-.179
OE	.083
HBm	.300*

1) A:5, B:4, C:3, D:2, E:1, F:0, ***: P < 0.01, **: P< 0.05, *:P< 0.

If the school changes the exam form to MC or OE, there is no significant link with actual success in this subject. Correlation coefficients are close to zero. The students believe that there is no connection between actual performance with HBw and the expected result of such a change. This is an indication that the students believe that the type of exam is a critical factor for success and the ranking of the students. If the school transitions to a group exam and a common grade, there is a negative correlation with the actual grade (but not a significant one).

5. Limitations

This study has several limitations. We have no observations on what students' actual behaviour is, only what attitudes they have to different forms of examination. Furthermore, the data has only been collected at a university in Norway. There are quite a few observations. Therefore, one should be careful in drawing definitive conclusions.

6. Conclusion

The technical possibilities of the Internet, among other things, provide many opportunities for arranging courses and exams. The exam is an important part of a study programme at a university. Therefore, focussing on different forms of examination is of interest.

This study is limited to an investigation of the attitudes of students from a public sector management programme to different assessment designs. These students favour an individual home-based exam with a deadline of one week. This format stimulates high motivation, great effort, a good learning approach, and expected success. Students are not so eager if the exam period is extended to one month. One explanation for this is that

the exam will consequently require more demanding tasks. Students have little sense of group exams or multiple-choice tests. These formats engender significantly less motivation and effort. On the other hand, traditional closed-book school exams get pretty good support, but these increase anxiety levels. As other research demonstrates, students are nervous when taking an oral exam, and there is also a significant difference in the attitude of the genders to this format. This research provides useful knowledge for the planning of various teaching programmes.

Conflict of Interest Statement

The author declares no conflict of interest.

About the Author

Leiv Opstad is a professor in economics at Western Norway University of Applied Science, Sogndal, and at NTNU (Norwegian University of Science and Technology) Business School in Trondheim. He is teaching in economics and public economics for undergraduates and master students. His research fields are education and applied economics. E-mail: ltop@hvl.no (or leiv.opstad@ntnu.no)
ResearchGate: https://www.researchgate.net/profile/Leiv-Opstad
Academia: https://ntnu-no.academia.edu/LeivOpstad

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