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# The mundane governance of education through time: the case of national testing in Norway

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## ABSTRACT

This article explores national testing in Norway by analyzing technical and bureaucratic documents steering the process of data production. By examining documents through sociological perspectives on time, as well as attuning to the form and genre of the documents, we identify bureaucratic, sociotechnical, and genre-specific ways in which data production is structured to ensure a smooth process of testing. We find that national tests govern (through) time and by ordering time: their time rules produce simultaneity and synchronicity that in turn gently nudge schools and municipalities into alignment. Thus, time rules and routines enable forms of mundane governance that mirror how contemporary education policy happens through short but more prescriptive (and increasingly digital) policy texts. This is how national authorities may make themselves less detectable, but ever more present and productive of national unity. While recent conversations on time and temporality focus on the emergence of complex, non-linear (e.g. networked) time enabled by the digital transformation of society and education, our article attests to the persistence and significance of linear temporalities in and for education governance, and shows how quantification, assessment, bureaucracy and the affordances of digital technologies together play pivotal roles in upholding a linear time order.

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## Introduction

The promises made in the name of national assessments – to monitor quality and to enable scientific insights into educational outcomes and progression – rely on the uniformity of bureaucratic practices achieved through a meticulous standardization and stabilization of the sociotechnical processes, actors, and environments of testing (Piattoeva & Saari, 2018). Our main purpose in this paper is to examine how the administration of national tests (interchangeably ‘data production’ in this article) produces uniformity across schools and municipalities by invoking certain temporalities. We approach national large-scale assessment data as an intrinsic part of the governing of education (Ball, 2015) and focus attention on the emerging temporalities which in their

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own right enable such governing effects. In Norway, national large-scale assessments refer to national testing and form part of the National Quality Assessment System. The national tests are electronic, mandatory, and administered by the Norwegian Directorate for Education and Training. They are taken annually and cover English, literacy, and numeracy in the fifth, eighth and ninth grades. National tests constitute one of the most significant policy changes in Norwegian compulsory education over the last twenty years and are one of the few standardized governing practices in Norwegian schools. Their overarching aim is to improve quality in schools while enabling insights into educational output (Skedsmo, 2009). The national tests are also intended to hold several actors accountable, ranging from teachers and school principals to municipal leaders, the Directorate, and the test developers. The Norwegian school system is widely dispersed, largely due to Norway's geographical and demographic characteristics with considerable differences persisting between rural and urban areas (Gunnulfson & Møller, 2021). This includes freedom of school choice as restricted to only certain (urban) counties, as well as differences in school size and distances between home and school. Norwegian municipalities are responsible 'school owners' of all public primary and lower secondary schools, ensuring that all children in that age range receive the education they are entitled to according to the Education Act (Opplæringsloven, 1998, §13). Similar to the overall education system, Norwegian municipalities constitute an important part of the decentralized organization, including in the execution of national tests.

Sociological and historical research on time (e.g. Adam, 2004; Kitchin, 2023) shows how time is an important aspect in the exercise of power and governance (Nowotny & Plaice, 1996, cited in; Keightley, 2012, p. 10). Policymaking and the functioning of (political) institutions take place in time and use time, for instance, as particular temporal orders, time rules and temporal grids, while reconfiguring time through enacted policies (Kitchin, 2023). Those who can control the allocation and functioning of time related elements can exercise significant and perhaps unaccounted for powers (ibid). For instance, the introduction of uniform and standardized time frames may 'establish commensurability and comparability and allow for commodification and exchange' across a vast spatial unit (Ogle, 2015, p. 22). The introduction of time rules (for instance, punctuality in everyday life or deadlines in academic contexts) invites a new layer of control – control over adherence to such rules and orders.

In recent years, a number of special issues and individual contributions have addressed time in education as inherently multiple and networked (Ball & Junemann, 2010; Decuyper et al., 2022; Hassan, 2017; Lingard, 2021; Lingard & Thompson, 2017; Thompson & Cook, 2015). These literatures trouble the notion of time in education and policy as merely linear, chronological, or sequential, especially in relation to digital technologies. A second (but connected) body of literature such as critical platform studies, which addresses the relational affordances of digital technologies more broadly, shows how digital technologies like websites and platforms exercise inherent governing powers imbued within them that likewise affect how data is fabricated, stabilized, and utilized. In relation to time, such studies show not only how data encourage and make educational matters visible and/or invisible, but also how it produces particular sorts of time (Alirezabeigi et al., 2023; Hartong, 2021; Lunde, 2022; Romito et al., 2020; van de Oudeweetering & Decuyper, 2019). These studies often promote methodological protocols that necessitate direct engagement with the platforms in order to examine how

particular notions of time take shape on the screen, and which activities these notions encourage. We contribute to these bodies of literature in three interrelated ways. First, we focus on data production, as opposed to *data use* examined by a large body of literature (i.e. Gorur & Dey, 2020; Gunnulfsen, 2017; Ottesen, 2018; Piattoeva et al., 2018). Second, we empirically address the data production phase of national testing by analyzing mundane guiding documents that have a dual status of being stand-alone policy documents *and* interrelated texts on a webpage. This means that our study moves between document analyses and digital methods, and we cross-fertilize these methods to attend to the changing nature of policy documents requiring novel methodological approaches. Third, while previous studies emphasize that time is more than merely linear due to the heightened influence of digital technologies (i.e. Ball & Junemann, 2010; Decuypere et al., 2022; Kitchin, 2023; Lingard, 2021; Lingard & Thompson, 2017; Thompson & Cook, 2015), we focus attention *back* onto linearity, as we show how linear and chronological logics are produced to enable a smooth operation of national testing, even in digital environments.

This paper will proceed as follows. We will start by contextualizing the national tests in Norway. The second section will introduce our analytical and methodological framework, and the analysis will be presented according to our analytical and methodological steps. Finally, the last section will discuss and present our conclusions and contributions.

### About the national tests

After a parliamentary resolution in 2003, the national tests were first introduced in 2004 as part of the establishment of a national quality assessment system in Norway (Budsjetttinnst. S. nr. 12, 2002–2003). The results were to be made public on group level (school, municipality, county). While there was widespread political agreement on the introduction of the national tests, no such support was found amongst school professionals. During the very first round of testing in 2004, teachers, teachers' unions and student unions boycotted and sabotaged the tests because they deemed them undemocratic, resource-intensive and devaluating of pedagogical competence. After a short break due to the massive protests, the tests were re-introduced in 2007 (Mausethagen, 2013).

The tests were developed to measure the achievement of the competence aims mentioned in the national curriculum (from fourth grade and seventh grade). Today, students in fifth and eighth grades take the tests in numeracy, literacy, and English. Ninth grade students only take the tests in numeracy and literacy, and these tests are the same as those in the eighth grade to provide better opportunities for comparisons of progress over time. The tests are taken electronically through the PAS test system. The individual results are also found here or transferred to other learning analytics platforms. Only teachers and principals have access to the individual data. Group data, however, are publicly available on the Directorates webpage 'Statistikk', where the data is visualized in different analysis boards. Here, anyone can extract data on county, municipal and school levels from the national tests, and make comparisons across these and over time. School owners are responsible by law for implementing procedures to follow up schools' results on national tests (Opplæringsloven, 1998, §13–10). The production of comparability is constructed around unifying municipalities to monitor progression, as well as unifying the different grade levels through specific test designs that produce comparable results. In what

follows we will demonstrate how further unifications are constructed in the production of national testing data. We examine how guidelines and rules may order time and how the same guidelines and rules fold in particular temporalities.

### **Analytical and methodological framework**

We view national tests and their antecedent preparations and executions as a form of mundane governance (Woolgar & Neyland, 2013) that focus us on the physical, ordinary and everyday organization of education. This view considers how school life is constituted by ordinary materials and technologies, like specific calendars found in the repetitive rhythms of large-scale assessments, lists and deadlines (Landahl, 2020; Phillips, 2012). Such documents and practices then produce the rules and routines in schools, which often become an ordinary and unremarkable activity. Rules and routines are central in creating trust in the fairness, accuracy and transparency of administration and its outcomes – be these formal decisions or knowledge outputs. National testing relies on the production and dissemination of general formal rules and routines enshrined in manuals and checklists underpinning testing as a process of data production.

The publication of such guidance and instructional materials from the Directorate has in general increased over the last few years and has become one of the main ways in which the national authorities encourage local school development in Norway. This includes planning tools, competence packages, analysis boards and curricular support, to mention a few. These materials can be seen as a different grouping of policy documents standing alongside White Papers, Green Papers (official governmental reports), and the national curriculum. Whereas policy analysis and datafication literature is habitually concerned with visionary policy papers, we argue for the importance of looking at the grey and dull manuals, instructions and recommendations that increasingly make up some of the most important documents in the everyday organization of education, to disentangle the operations of governance through time.

Our analytical framework focuses on how national tests govern time and how the production of national test data is governed by certain documents and the temporalities that they engender. We draw from Piatteova and Vasileva (2023) to view the administration of national tests as consisting of diverse components that order time. In other words, national tests govern through time critical factors and disparate temporal processes essential for the smooth administration of testing. These processes entail, among other, synchronized calendars and time-prescribed actions (cf., Piatteova & Vasileva, 2023; Stine & Volmar, 2021). Moreover, the mundane logistics breeds and relies on documents that guide the administration of national testing on the municipal and school levels. In this respect, we draw on existing conceptual debates about the nature of bureaucratic practices in general and administrative documents in particular (Asdal & Reinertsen, 2022; Riles, 2006). The day-to-day documents could be considered as technical and bureaucratic as opposed to political (Asdal & Reinertsen, 2022, p. 67) and serve as ‘timekeepers’ in that they regulate what happens, when, and where (Asdal & Reinertsen, 2022, p. 24). Examples include budgets, instructions, and checklists. While these may seem insignificant, they function as inconspicuous tools of governance by steering implementation in practical terms, posing the question of how they work and to

what effect (Riles, 2006). With these analytical considerations as a backdrop, the analysis combines the understanding of documents as instruments of time that participate in encouraging and constructing specific practices in schools and as carrying particular temporal prescriptions *within* them that produce the temporalities of national testing. These points are intertwined and run through the three analytical steps described in the following.

First, we analyzed the selected documents in terms of their role in the bureaucratic management of national tests. We argue that the documents play a central role in operationalizing policy and have a much more prescriptive role than the visionary policy documents, particularly in decentralized education systems. We therefore explored how the documents encourage delegations of tasks and responsibilities, which actions must be taken, and which issues are prioritized. In other words, we focused on how they construct the regulatory space of everyday, mundane governance. By focusing critical attention on the manifestation of the mundane regulatory and structural aspects of planning and implementation of testing, we aimed to both shed light on and better understand this under-researched area, but also, and through this process, to address the key question of how time comes to matter in the spaces of bureaucratic activities of testing. In this first step, we were thus concerned with the content of the documents, and which time-related managerial tasks the documents encourage through their content.

Second, the administrative rules and routines invented by the state authorities underpin national testing and generate mundane practices that (re)shape collective life on a bordered territory (Piatteova & Vasileva, 2023). Despite their aura of impersonality, these rules and routines originate in the state which, instead of governing from one centre performs itself across many sites impersonally through an ongoing invention and association between different objects and practices (Joyce & Mukerji, 2017). For instance, infrastructural projects such as highways and canals, but also post offices and document archives spread across state territories to bring the power of the state down to the local level by shaping everyday life (Joyce & Mukerji, 2017; Mukerji, 2010). States and state power are thus performed through shifting and expanding assemblages of heterogeneous human and non-human actors and across distributed sites that may even seem unrelated to the exercise of state power (Joyce & Mukerji, 2017, p. 15). Accordingly, we analyzed how the documents prescribe activities that rely on and create complex sociotechnical relationships. In particular, we examined the relationships between human (principals, teachers, municipal officials) and non-human entities (i.e. particular internet browsers and administrative documents) that align through time rules, time critical factors and disparate temporal processes invented in order for the national tests to function.

Third, we analyzed the documents in terms of their genre and form. Researchers of documents have suggested that in addition to focusing on documents as texts to be read, we should pay attention to documents as a form and genre, that is, to their formal and aesthetic properties (Riles, 2006, p. 19). This is because the material properties of the documents constitute their communicative practice (ibid., 20). By paying attention to form, we focus on how they prefigure the time rules guiding those who engage with the implementation of national testing. The form of many documents could be considered as a kind of antirhetoric – a sort of instrumentalist rhetoric that convinces by means of simplicity and plainness (ibid., 19). Such simplicity of form is guided by compelling reasonings such as efficiency, time saving, superfluity of interpretation and ease of

communication. We analyzed the genre and form of the documents by attuning specifically to i) the experience and readability of the documents, and ii) the specific genre and replicated designs across the documents.

Based on the above, we analyzed policy documents from the Directorate for Education and Training that outline specific recommendations and guidelines for the preparation, execution and interpretation of national tests (see [Table 1](#)). The documents include checklists, guidelines, instruction manuals, frameworks and fact sheets. The documents are presented on the Directorate's webpage and are as such text on a webpage. While exploring the Directorate's webpage, we found a separate section devoted to national tests that gathers (some) national testing documents. The documents have their own designated tabs that guide the reader to new parts of the webpage, and all can be converted into a PDF file. We downloaded each tab as a PDF document and analyzed these as stand-alone policy documents. On the one hand, the documents are PDF documents and as such invite to engage with the content as *readers*. On the other hand, as interrelated texts on a webpage, they clearly communicate the need for certain actions to be taken, meaning that the readers are also imagined as putative *users*. Critical platform studies in education have emphasized methodological protocols where researchers position themselves as potential users of platforms to reconstruct what is happening on the platform and its' potential usage (i.e. Decuyper, 2019; Hartong, 2021; Lunde, 2021; Romito et al., 2020). We drew on these earlier studies by positioning ourselves as both readers and users but leaned more towards the latter definition (readers as users). However, we were also interested in examining how the two modes affected each other.

For instance, the texts do not resemble interactive webpages or platforms with diagrams and striking colors, but they follow a clicking logic that produces a certain linear affectivity. By clicking through the webpage, the user is guided to the next relevant document and as such, the next steps in the production of the national tests. The documents link to each other, both thematically and technically, through hyperlinks leading to other tabs (open new documents) covering specific processes of the national testing regime. We quickly found these to be a maze of documents, as there is no feature on the Directorate's webpage that gathers all of them in one place. Instead, the fragmented clicking logic provides a different sort of overview by taking the user to the next relevant document and prompted us as users to keep moving forward to explore the next phases of data production. Within the documents, we also found hyperlinks to other guidelines and preparation material. We skimmed these, and included those that were meant for the data production phase of national tests and/or contained explicit temporal activities (i.e. calendars). [Table 1](#) below provides a list of the documents scrutinized.

**Table 1.** Documents we have analyzed in this paper.

Documents analyzed
Checklist for carrying out national tests [Sjekkliste for gjennomføring av nasjonale prøver].
Framework for national tests [Rammeverk for nasjonale prøver].
Technical requirements for taking the tests [Tekniske krav ved prøver].
Following up results from national tests in school and in the municipality [Følge opp resultatene fra nasjonale prøver på skolen og i kommunen] (Directorate for Education and Training, 2019).
Administering national tests [Administrere nasjonale prøver].
What are national tests? [Hva er nasjonale prøver?].
Log-in for students [Innlogging for elevene].

The following analysis is structured on the basis of the three analytical steps described above, focusing, first, on the bureaucratic practices emerging from the mundane documents governing testing; second, examining the sociotechnical relationships between human and non-human actors shaped by the emerging documentation; third, addressing the form and genre of the documents as both stand-alone policy documents and inter-related texts on a webpage.

## The bureaucratic management of national testing

Administering the national tests builds on several bureaucratic measures that are ordered through time. School owners, principals and teachers have clearly delimited responsibilities to facilitate the administration of the national tests. Their responsibilities are specified in a checklist document (Directorate for Education and Training, 2022d): the school owner and principal are to ensure the necessary human and technical resources, make sure everyone adheres to important deadlines and to the data privacy regulations, facilitate access to the tests and guarantee the necessary local support, while the principal and teachers are to supervise technical equipment and students to take the test, and make individual decisions and adaptations for those students who need it. The checklist also serves as a calendar, where these different responsibilities are distributed between a pre-phase and a concurrent phase. In other documents, we also find a post-phase (at times, the documents also refer to the ‘whole period’, which encompass all three phases).

The ‘national test calendar’ is further detailed by listing important dates that operate as deadlines. It not only aligns schools across municipalities, but grade levels within schools are also aligned as the deadlines are the same across fifth, eighth and ninth grades. The deadlines are specified with week numbers and dates, namely when the registration period starts and ends, when schools need to register students who are exempt from the tests, and the period where the students need to take the test. In several places, the documents urge to ‘remember to keep the deadlines!’ The deadlines serve not only to hold the actors managerially accountable, but are also commonly high-stake as ‘the quality of the results from the national tests is contingent on schools following the regulations for exemption’ (Directorate for Education and Training, 2022a, p. 7). There is also a risk of students being registered with zero points automatically if teachers do not remember to assess the open-ended questions of the tests before the deadline.<sup>1</sup>

Teachers, principals and municipalities are not the only actors governed through time in the national testing regime. Students are also aligned to its strict rhythms. The students are given 60 minutes to take the English test, and 90 minutes for those in literacy and numeracy. Students with special needs may be granted extra time, but the Directorate states that they are allowed a maximum of 30 minutes extra (excluding extra breaks), and all tests must be taken between 8 a.m. and 4 p.m. In the event of a student completing the test early, the document ‘Administering National Tests’ (Directorate for Education and Training, 2022a) directs students to remain seated:

‘The students can submit their answers when they have finished, but they must sit calm during the remaining time so that they do not disturb the other students. It is teachers’ responsibility that students who have already handed in their answers have something to do until the test-time is over’. (p. 12)



This shows that while there is some flexibility in the temporal duration of the tests (the maximum amount of time), less flexibility is available for students finishing early, suggesting that the timeframe of the national tests governs not only how time is managed in the production of the tests, but also its subjects' (the students') locations. Flexibility for teachers can be found in the instructions for taking the test:

'Teachers or the school administrator start the test by pressing "Start Test" in PAS. You can choose to start the test when the students are seated in front of the screen, or right before you enter the classroom. If you want all students to start the test at the same time, you can wait to start the test until everyone has logged in and typed in the groups' code word'. (ibid. p.13)

Here, teachers can determine the test time themselves, while also choosing whether or not they wish their students to take the test at the same time. In other words, teachers can choose to align some students, or not, during the test.

### **The sociotechnical management of national testing**

There are extensive demands for information, communication and general accessibility between all governing levels and at all stages of the tests (Directorate for Education and Training, 2022c). This includes how time is managed, but also how to adhere to the timed actions of data production, where complex technologies play a role in order for the test situation to run smoothly. This includes having a stable internet connection, using the correct browser type and device (computer, iPad, Chromebook), adequate screen resolution and bandwidth – the latter being extremely important, as other online activities in school may be put on hold for the duration of the tests if it does not have the necessary bandwidth (Directorate for Education and Training, 2022e). Other activities in school may therefore be cancelled in favor of national tests, not just during the preparations for the test, but also during the tests. Put differently: what happens in one classroom during a national test may affect other classrooms and construct their temporality accordingly.

The digital technologies work alongside and together with the human actors in the infrastructure of the national tests. While students and schools have strict guidelines on how long each individual student sits for the test, the test-system PAS does not. This means that the tests are not terminated automatically after 60, 90 or 120 minutes. The Directorate stresses that schools 'need to manage time themselves' (Directorate for Education and Training, 2022a, p. 10). However, the test system registers how long each student has used to take the test, and this is data that teachers and principals have access to on PAS. Teachers can also monitor their students in PAS during the test through a 'student monitor' feature on the test system. This feature is commonly used after data production to generate result reports but can also be used during the test to check where the student is at any particular moment. While this creates something of a flexible timeframe for the students, teachers and principals, it likewise stresses that the principal can 'in special cases, consider an extended time of up to 30 minutes' (ibid., p. 10), meaning that the strict interval of the national tests is still maintained. This type of *data on data production* (Piattoeva, 2016) could imply a surveillance of time-management on the one hand, or on the other allocating more freedom to cater for those students in need of it. Nevertheless, the specific information on time-use, and

restraining students from leaving their seat after taking the test, both serve to unify all student groups across individual needs, as well as across sites.

The sociotechnical management of national tests suggests that the human actors involved (students, teachers, principals, school owners) and the non-human ones (bandwidth, one-to-one device, different types of data) need to be aligned for the smooth running of the test and to resolve possible issues. In case of a technical problem in some part of the administration and completion of the test, having clear requirements for the digital facilitation of the tests will quickly point to a specific place in the chain of responsibilities and delegations that needs fixing. For instance, ‘Log-in for students’ and ‘Technical requirements for taking the test’ (Directorate for Education and Training, n.a.; 2022d), shows that if a student who has logged-in to PAS is not able to open the test, it is because the teacher has not yet pressed ‘start test’, or if a student is not able to view a video during the test it is most likely because they are using Firefox (instead of one of the other recommended browser types). These meticulous specifications facilitate the timely production and execution of the tests to ensure that teachers and principals know how to prevent, and quickly fix issues possibly arising during the test situation. Together, the human and the non-human actors uphold the important deadlines and time rules of the test.

### **The form and genre of national testing documents**

The form and logics of the national testing documents also suggest certain temporal components. While the clicking mechanism of the webpage makes the documents rather fragmented, we find a certain chronology within them in how their form is structured. The clicking logic suggests the readers/users of the documents are instructed in specific timely patterns that induce a constant moving forward. By taking the user to the next relevant document, it suggests the next step and ‘steer[s] or more implicitly nudge[s] educational actors and/or systems in preferred directions’ (Decuyper & Broeck, 2020, p. 603). The way the documents are read is therefore imbued with a temporality of forward-looking productivity and efficiency.

The clicking logic is further enforced through different formats that are replicated throughout the documents and produce specific time rules: i) calendars, ii) timelines, and iii) bullet points as drop-down menus. The calendars depicted in the documents on the one hand allocate responsibilities in specific bureaucratic and timely matters. On the other hand, they suggest certain recurring rhythms. While the documents are updated yearly, the calendars and deadlines usually follow the same yearly rhythms, and the deadlines fall under the same weeks year after year. This means that, while the national test calendar can potentially disrupt school time, the recurring rhythms that stay constant ensure a better alignment with the time rules in the production of national test data. The documents abound in different visualized timelines, ranging from encompassing the overarching phases of national testing to specific log-in instructions. In [Figure 1](#), the different phases are visualized through arrows. The arrows work in three ways. First, they orient the user of the headlines of the document (they are organized according to the phases). Second, they are clickable, and will re-direct the user to the desired part of the document. Third, the design itself (one main arrow with three parts), strengthens the linearity of the data production by orienting the tests in time (past, present, future). This

specific format of the timeline does two things in particular, namely, it structures the way users read the document that *can* be chronological while simultaneously not being so as the clicking mechanism of the webpage gives users the option to ‘jump’ in time (for instance, if going straight to the second phase is most relevant). Second, it structures the national testing procedures by situating these in and as specific temporal processes. In real life, the specific ‘jump’, going straight to the second or third phase, however, is not applicable and the documents will therefore structure practice according to the linear format of the arrows.

Bullet points are often part of modern policy documents and serve as a way to clearly structure important aims and objectives. Strathern (2006) shows how bullet points are an ‘evolution in language’ (p. 95) where institutions learn how to effectively describe themselves and their procedures; in our case, the Directorate extends this description to municipalities and schools. There is also a certain selectivity in these bullet points as the Directorate has chosen how to support the local actors by narrowing down specific support structures through these bullet points (i.e. responsibility distribution, user support, facilitation of the tests, technical requirements, how to assess open-ended questions, important dates). There are three main ways in which bullet points are presented in the documents. In some documents, bullet points are directed towards actions (what the school owner, school leaders and teacher should do). In other documents, the bullet points are direct hyperlinks that guide the user to specific parts of the documents (same function as the arrows in Figure 1), or to other relevant documents. In a third grouping, the bullet points’ functionality is extended. Pressing one of the arrows in Figure 1 (or scrolling down the page), guides the user to a longer, and more detailed list of bullet points where each phase (past, present, future) is more meticulously described. While bullet points in physical documents that may or may not have been digitized often reflect ‘good practice’ statements (Strathern, 2006), the bullet points that we describe are born-digital and thus cause additional repercussions (Birkbak & Munk, 2017). The specific bullet points in each phase appear as a drop-down menu, which means that the previous arrow is broken down into smaller elements that display the micro-actions in each phase. The temporal elements of national tests are therefore more complex than simply being oriented in the past, present and future. There are several mundane activities that drive this linearity forward, such as adaptation to time limits during the test and registering absence.

Moreover, the calendars, timelines and bullet points in the form of the drop-down menu highlight each activity from A to Z as non-negotiable temporal structures. They are clear procedures that follow a chronological logic, and they are not amenable to analysis or negotiation as a longer policy text would permit. The bullet points have no narrative and are as such plain instructions rather than sources for debate, as is often the case in national policy documents like White Papers and curricular frameworks. The original



**Figure 1.** Visualized timeline of national testing: 1. Prepare and sign up, 2. Execute, 3. Follow up results (Directorate for Education and Training, 2022b).

purpose of national tests, that is, quality work in schools, may therefore be lost in the maze of guidelines and instructions that more than anything highlight temporal procedures as one of their most important components.

### Concluding remarks

This article has developed an analysis that moves beyond discussions of the use of large-scale assessment data in terms of comparability and alignment *after* data production. By focusing on the data production phases, the analysis showed how the specific procedures put in place in the arrangement and organization of national tests are not just neutral administrative routines but enable forms of mundane governance that control everyday actions ranging from when a teacher chooses to press a button (starting the test in PAS) to when a student is able to leave his or her seat. We thus claim that the bureaucratic practices underpinning data production constitute and reinforce strict temporal procedures as tools that govern and unify municipalities, schools, school leaders, teachers, classes and students across space. In our case, they manifest in the new and selective ways that the state (in the face of the Directorate) chooses to support municipalities and schools: namely, the mass production of support materials in the form of mundane policy documents. These temporal procedures represent distributed governing practices that are common in modern bureaucracies.

While education policy research has largely been interested in empirical data that center around national documents like White Papers, governmental reports and official strategies, this article has demonstrated the general importance of also attuning to the mundane documents. The state increasingly connects to its users by producing a plethora of digital support materials (Williamson, 2016). These may assume different forms: as websites, as platforms, as planning tools, as curricular support packages, and as guidelines, checklists, and fact sheets. The documents analyzed in this article serve both as standalone policy documents and as interlinked texts on a webpage but they all represent a governing trend where the state has moved from producing a quantity of longer policy texts with narrative functions to the mass production of shorter (and digital) policy texts, specifications and recommendations that lack the same narrative, but that aim to steer schools in very pragmatic and yet prescriptive ways by deploying time as a governing tool.

Mundane governance can be depicted in document material (and not just in practice) by selecting documents designed to serve practitioners in their daily activities. By focusing on the dual mode of the examined documents (as standalone policy documents and as interrelated texts on a webpage), we contribute to and bridge existing literatures in critical platform studies and education policy research, inviting both to pay attention to the relationship between the two modes (documents and webpage) and how they shape each other's potential for governing (through) time. We add new insights to critical platform research (i.e. Decuyper, 2019; Hartong, 2021; Lunde, 2021; Romito et al., 2020; van de Oudeweetering & Decuyper, 2019) by acknowledging that webpages serve several functions through their content that likewise affect their genre (and thus their readability and potential usage) by way of their form and design even *before* an activity takes place. Thus, we showed that attuning to policy research in a way

that acknowledges how governance operates across distributed sites and in association with different objects and practices (Joyce & Mukerji, 2017) is not just about depicting those realities in the empirical material we study, but also about how the research itself (the data collection and analysis) is produced in-between and within the governing effects of the types of documents we study.

To sum up, we have argued that national tests in Norway are governed through time by entangled bureaucratic and sociotechnical activities that structure the data production phase. This takes shape through specific time rules and temporal routines focused on important deadlines and procedures organized in terms of weeks and days (registering students for the test, or not, teachers assessing the open-ended questions), hours (taking the test with or without additional time), and minutes (registering time-use in the test system, deciding when to start the test). The genre and form of the documents also govern through time by their specific clicking logic, suggesting that readers are always moving forward through – and implementing unanimously – the time rules of the national tests. National tests thus govern by allocating responsibilities across the hierarchical governing levels in terms of actions and dates (bureaucratic), clear technical instructions to quickly detect possible errors and upholding the time rules (socio-technical), and the unfolding of the data production in specific temporal processes by using specific timelines to ensure a smooth process (form and genre).

The main temporalities produced across the examined practices of administering standardized national assessments could be summed up as simultaneity and synchronicity. We showed how these central temporalities are effects of a particular, emerging type of policy documentation (manuals, checklists and clickable websites) that seeks to produce and link events (national testing as a set of meticulously broken down, prescribed actions) separate in space (cf. Galison, 2004). Simultaneity as a measure and a prerequisite of standardization in bureaucratic data production entails the establishment of synchronized procedures of observable, reportable and replicable coordination of human and non-human actors in space (Galison, 2004). These precisely described mundane actions facilitated by administrative documentation create governance by gently nudging dispersed actors into alignment and producing the focus of their attention and action, and by establishing a layer of (new) rules and routines to follow, which, if breached, will have unwanted consequences. Our analysis shows the complexity and yet ordinariness of generating these governing temporalities through the fusion of documents, humans and digital technologies all needing to come together in a timely manner. In this way, the national state authorities engineering and coordinating this fusion may disperse themselves across local sites and a myriad of actions, making themselves less detectable and yet ever more present and productive of unity. While recent conversations on time and temporality focus on the emergence of complex, non-linear (e.g. networked) time enabled by the digital transformation of society and education, our article attests to the persistence and significance of linear temporalities in and for education governance, and shows how quantification, assessment, bureaucracy and the affordances of digital technologies together play pivotal roles in upholding a linear time order.

## Note

1. Open-ended questions are only found in the National Tests for 8th grade and 9th grade students.

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No potential conflict of interest was reported by the author(s).

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