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Master Thesis Legal Theory & Socio-Legal Studies

An exploratory, quantitative study on the role of judicial assistants in the judicial decision-making process in the Netherlands

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Abstract

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1. Introduction & research questions

A. Context

Over the past 25 years, the role of judicial assistants has changed. While they used to perform mainly secretarial and administrative tasks, recently they have become fully-fledged assistants to judges and perform work directly related to cases. This is not only the case in the Netherlands (Holvast, 2017), but also in other countries and at international courts.

Nowadays, tasks of judicial assistants include "preparing memos for hearings, acting as sparring partners in deliberation and drafting judgements" (Holvast, 2017, p. 16). Additionally, assistants have considerable power over the flow of cases throughout the court, for example by deciding the time allotment for hearings. According to Holvast, this trend corresponds with an increase of law degrees among judicial assistants; it is not a trend that is inspired by changes in law or policy, but "rather, they appear to be practical responses to changes at the workplace, a course which emerged tacitly within the practices in courts" (p. 16). The rise of university educated judicial assistants corresponds with reforms in the judiciary introduced at the start of the millennium (Scholtens, 2006; Abram et al., 2011).

There is also anecdotal evidence that provides insight into the influence an assistant might have. For example, job openings at various courts include the 'writing of draft judgements' as an important task description for judicial assistants. Additionally, in 'a day of the life of a judicial assistant' interviews on social media, published by the Netherlands Council of the Judiciary (*Raad voor de Rechtspraak*), writing the draft judgement is often highlighted as one of the most important and interesting tasks.[1] In 2018, a new project was started by the Netherlands Council of the Judiciary where judicial assistants are trained in writing verdicts in commercial sections of courts (Commissie Visitatie Gerechten, 2018 p. 36).

How might the role of the judicial assistant change in the future? Multiple initiatives and examples exist from which we can hypothesise that the influence of judicial assistants could grow in the coming years. Influence can grow by increasing the number of tasks allocated to judicial assistants. For example, Dutch courts faced budgetary issues in the past decade and are currently still financially struggling. According to the Netherlands Council of the Judiciary, the number of lawsuits is steadily decreasing while fixed costs remain constant (Raad voor de Rechtspraak, 2018). To find solutions for these budgetary issues, the Netherlands Council of the Judiciary hired Boston Consulting Group (BCG) to give advice. In their analysis, BCG concluded that more efficiency could be achieved by realising a good division of tasks between judge and assistant. More specifically, they concluded that more writing of draft judgements could be done by assistants. (Boston Consulting Group 2018, p. 189)

Another example of the role of judicial assistants changing, is a recent pre-advice issued by Stoepker and Schulmer (2020). In this pre-advice, they called for an experiment where the pre-trial investigation (*vooronderzoekscomparitie*) would be led by someone other than an administrative judge; more specifically,

1 I.e. see https://www.raadvanstate.nl/werkenbij/bestuursrechtspraak/klaar-start/, https://m.facebook.com/Rechtspraak/photos/a.325986370873530/1430467350425421 and https://www.rechtspraak.nl/Organisatie-en-contact/Organisatie/Gerechtshoven/Gerechtshof-Den-Haag/Nieuws/Paginas/Even-voorstellen-een-juridisch-medewerker-familierecht.aspx

the judicial assistant. This could move part of the case burden from judges to judicial assistants. These types of 'efficiency incentives' can — subtly — lead to an increase of tasks and responsibilities for judicial assistants. Subsequently, an increase of tasks and responsibilities could lead to an increase in influence of judicial assistants.

There is also recent empirical evidence that shows what influence a judicial assistant could currently have. Holvast and Mascini (2020) conducted empirical research to answer the question whether assistants are actively involved in the decision-making process and whether they influence outcome of judicial decisions. In their research, they conducted an experiment to find out how assistants can influence decisions, what the perceived influence is and to what extent decisions are influenced by memos. They found that assistants often participate in the decision-making process in three ways: by providing the judge with a partner to reflect, by preparing cases for the judge and by drafting judgements.

In this paper, I will explore the position of the judicial assistants in Dutch courts. The starting point of my paper is an exploration of existing literature on the position of judicial assistants in the Netherlands, U.S. context, European context and international courts. I also explore the judicial decision-making process in Dutch courts, and the steps at which assistants could exert influence, the factors that determine this influence and the academic debate surrounding this influence. Based on this theoretical exploration, I formulate various starting points for exploratory quantitative research (section 2.E.).

[add a section on the quantitative research I did]

B. Research questions

This paper contains a theoretical exploration on the influence of judicial assistants in the decision-making process. From this theoretical exploration, I will distil various factors that could be used to perform quantitative analysis to research the influence of judicial assistants. I will also perform this quantitative analysis. The starting point of my research, however, is my research question. Based on the context in the previous section, my research question is:

Which factors affect the influence a judicial assistant has in the judicial decision-making process? [rephrase once paper is done]

The relevance of this research question lies in the question if assistants should have a role in the decision-making process and, if so, the extent of that role. The disagreement over answering that question alone, makes the topic already worth researching. In section 2.D. I further describe the discussion around the position of judicial assistants in the decision-making process.

In order to better answer this question, I formulated a number of sub-questions. These sub-questions are answered throughout this paper, and their answers summarised in the final section. The sub-questions are:

1. What quantitative or experimental research on the influence of judicial assistants on the decision-making process is still missing? (section 2.B.)
2. Which factors determine the extent of influence judicial assistants have? (section 2.C.)
3. In what ways can the experience of judicial assistants affect the characteristics of verdicts?

This paper is structured as follows:

- The next chapter contains a review of prior literature on the topic. In this chapter, I answer sub-questions 1 and 2. This section also contains a general reflection on the advantages and dangers of involving judicial assistants in the decision-making process.
- Chapter three contains the methodology of the research. The third sub-question is also answered in this chapter.
- Chapter four contains the results of my analysis, and a general interpretation thereof.
- Chapter five contains the findings of this paper in the broader context of previous research. I discuss the implications of the research and discuss options for further research.

2. Theories on judicial assistants and the judicial decision-making process

In order to figure out which factors affect the influence a judicial assistant has in the judicial-decision making process, a thorough understanding of the position of judicial assistants in courts is required. In section A section of this chapter, I elaborate on the position of judicial assistants in Dutch courts and how that position has evolved over the years.

NOTE THAT I DISCUSSED QUITE A BIT OF LITERATURE, ALMOST EVERYTHING

In the section B of this chapter, I review the journey of a case from the moment it is submitted to court, until a verdict is published. In this review, I analyse which steps of this journey have been researched through quantitative or experimental methods. This section also answers the first research sub-question: what quantitative or experimental research on the influence of judicial assistants on the decision-making process is still missing?

Section C answers the second sub-question: what factors influence the extent of the influence of a judicial assistant? I do so by reviewing a body of existing theoretical and quantitative literature on the influence of judicial assistants.

In section D I review concerns and advantages described by academics regarding the increasing involvement of judicial assistants in the judicial decision-making process. Section E concludes this chapter with a short review and intermediary conclusions. By formulating three types of analyses that have not yet been done in the Dutch judicial context, I lay the foundation for the quantitative research described in chapter 3 and 4 of this paper.

A. The changing position of judicial assistants

The increase of participation of judicial assistants in the decision-making process might be — relatively — new in the Netherlands. In other countries, this trend has been described for years. Predominantly in the United States, academics have theorized and researched the role of ‘clerks’ in various courts. This section reviews the position of judicial assistants in Dutch courts, and compares them to the United States. It then reviews various concerns and advantages of increasing participation of judicial assistants in the judicial decision-making process.

I. The changing position of judicial assistants in Dutch courts

In Dutch courts, assistants have a variety of tasks. They draft decisions, write memos in preparation for a case, decide whether a case is brought to a hearing, have contact with parties, et cetera. These tasks have not always been this way. Against a background of various commissions, reports and reforms, a new model for financing the judiciary was developed in the 1990s and early 2000s.[2] This new model, the Lamicie-model, contained a new method of calculating the amount of funding the judiciary would receive. It was

2 For a full, thorough examination of the process through which these reforms were established, see Scholtens (2006).

implemented in 2002. Generally speaking, the model takes the number of (expected) cases a court has (P), and multiples the type of case by a standard amount of minutes the case should take, expressed in euros (Q). This new type of funding model is often also described as: *funding = P x Q*.

Bevers's (2004) doctoral thesis researched the cultural change within the judiciary after the implementation of these reforms. He concluded that "enabling teams or other types of 'enabling cooperation' lead to a higher standard of quality in the work to be accomplished" (p. 204). Among other things, he said that, particularly for 'legal clerks' — which is interchangeably used with the term judicial assistant — the diversity and coherence of work increases with these reforms. Additionally, the relationship between judges and assistants improved as well. Bevers conducted his research right after the reforms were put in place. Bevers describes the situation before the reforms as a situation where judges and assistants lived independently lived among each other. Each moved within their own compartment, with a strict separation between sections.

These two changes, social and financial, marked the start of the change in position of judicial assistants. More judicial assistants were hired after 2002, as noted by Van der Torre et al. who saw an increase of 11% of supporting staff over the period of 2002 to 2005. In their year report of 2020, the Netherlands Council of the Judiciary announced that more than 600 FTE worth of judicial assistants (*gerechtsambtenaren*) were additionally hired between 2015 and 2020 (Raad voor de Rechtspraak, 2021d). New initiatives such as an internal training program and 'the minimum requirement of holding a diploma from an institute of higher professional education was introduced' (Holvast, 2017; Abram et al., 2011). The position of judicial assistant, from that moment, started to change from secretary to legal partner.[3] From 2002 onwards, the position of judicial assistants has continued to change and are still changing as of now. Below are two examples of that change.

Firstly, multiple experiments have been proposed and held in the past years that affected the tasks and duties of judicial assistants. The most recent example is Stoepker and Schulmer (2020), who proposed an experiment to have pre-trial investigation in administrative law (*vooronderzoekscomparitie*) be led by someone other than an administrative judge. They propose two variants: a variant for which no legislative change is needed; the judge would mandate the judicial assistant to lead the pre-trial investigation. A second variant, which they propose only to pursue after an experiment with the first variant was successful, would formalise the role of the judicial assistant as the one leading the pre-trial investigation. A legislative change is needed for this variant as this would introduce a new role within the judiciary: the 'preliminary researcher'.

Another experiment was conducted a few years after the change in funding model. The Netherlands Council of the Judiciary announced the start of a co-reading experiment, which meant that draft verdicts in single-judge cases would be proofread by either another judge or a judicial assistant (Baas, de Groot-van Leeuwen & Laemers, 2010). This shows two things: judicial assistants drafting verdicts was not a widespread practice in 2006, and judicial assistants started to receive more legal intensive tasks. Currently, the co-reading experiment is a widespread practice which is still used to enhance the quality of verdicts (Raad voor de Rechtspraak, 2021d).

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3 Interestingly, although the increase of judicial assistants was in part initiated by financial motives, some research indicates that there is no significant increase in productivity when exchanging judges for judicial assistants. See Van der Torre et al. page 17 for more information. Research by Dumaij et al (2014, p. 15) indicates that ——over time ——productivity in the judiciary after 2002 has not increased.

The second example of the changing position of judicial assistants pertains the codification of tasks and duties of judicial assistants. Only some tasks and duties are codified. Those that are codified for assistants working in criminal law are codified in the Code of Criminal Procedure (*Wetboek van Strafvordering*). Examples of those tasks are: transcribing during the trial (article 25), assisting judges who oversees criminal investigations (article 171), distributing relevant information to Courts of Appeal when an appeal was initiated by either party (article 409), and co-signing verdicts with the presiding judge (article 442). Roughly speaking, these tasks do not differ for assistants working in civil and administrative law.

Many other tasks and duties are not codified. Tasks that are not codified include judgement drafting, indicated by many judicial assistants as a task they find both important and interesting; many labelled it as their favourite duty (Holvast, 2017 p. 147). Other uncodified tasks are preparing bench memos prior to trial, participating in post-trial discussions with judges in formal (during panel discussions) and informal ways (sound boarding). While doing each of these uncodified tasks, assistants could exert influence (further described in section B).

Holvast (2017, p. 52) mentions that the lack of codification at a national level led to some courts developing additional guidelines as to what judicial assistants should be able to do. Additionally, she notes that some court divisions have detailed documents that list the tasks of assistants. The existence of court-specific duties allows us to label the position of judicial assistant as fluid. It is likely that assistants from court to court do not have the same non-codified tasks.

In 2016 and 2017, judges from various areas of law convened to establish professional guidelines. Many of these guidelines were just formalisations of existing customs. The introduction of these standards, however, is a start of the codification of these tasks and duties. Right now, these guidelines only pertain to judges. However, the Netherlands Council of the Judiciary announced in their annual plan of 2021 that they will research whether judicial assistants could benefit from professional standards as well (Raad voor de Rechtspraak, 2020 p. 11). That marks the most recent development on the position of judicial assistants in Dutch courts.

In conclusion, in this section I tried to give a brief historical overview of the changing position of judicial assistants from the 1990s to now. The position of judicial assistants is changing as we speak, and new experiments have been proposed to give further tasks to judicial assistants. Many of the tasks judicial assistants perform are not codified, though the Netherlands Council of the Judiciary is researching whether some of these tasks could be formalised in professional guidelines.

II. The position of judicial assistants in other jurisdictions

The role of judicial assistants across jurisdictions can differ largely. For example, in some jurisdictions, such as the United States, judicial assistants (also called law clerks) do not perform formal duties (Holvast, 2017 p. 57). In other jurisdictions, for example Belgium, they perform tasks that are very similar to judicial assistants in the Netherlands. This section contains a comprehensive review and comparison of tasks of judicial assistants abroad and in the Netherlands.

United States

Regarding the United States, Ward and Weiden (2006) conducted research at the Supreme Court in the United States. They concluded that, as the role of the legal clerk changed over time, their tasks and responsibilities increased. When these increase, their potential to influence the decision-making process increases as well. A similar trend can be seen in the Netherlands, where the role of the judicial assistant used to be secretarial of nature but evolved — over time — to a legal expert that drafts judgements and prepares memos for judges.

Peppers (2006) concluded that, although there is a strong bond of trust and mutual respect between justices and clerks, there is no real evidence that justices let their final decision be dictated by judicial assistants. He, however, was more hesitant in making conclusions about the extent of (other types of) influence of clerks. For example, Peppers interviewed multiple law clerks and a justice at the Supreme Court in the United States for his book *Courtiers of the Marble Palace*. In his words: “law clerks do not wield an inordinate amount of influence”. However, there are signs of influence in the interviews he conducted. For example, he quoted a clerk who said they do have influence over their justice, such as by “exposing the justice to salient facts in the record rather than an influence that changed the justice's mind once all the facts were before him”. Gee (2008) and Collins (2008) both also recognised this in their book reviews. Clerks at the Supreme Court are, generally speaking, employed for just one year.

When comparing the US context to the Dutch context, we see a few notable similarities. The main similarity is that academics in the U.S. and Netherlands alike noted the changing role of judicial assistants. Holvast (2017, p. 66) points this out too: “With regard to American courts, Kronman (1993) and Posner (1985) have pointed to the changing entity of the judicial work; instead of draftsmen of judgments, judges have become reviewers of the work of law clerks. This development can also be recognised in the Dutch district courts. Currently, the judges seldom completely write judgments themselves; most of the time, the assistants produce the first draft of judgments.” (p. 66).

An additional similarity is the large reliance courts in both the United States and the Netherlands on judicial assistants. Mak (2014) concluded that judges at the Dutch Supreme Court (*Hoge Raad*) and the High Administrative Court (*Raad van State*) both rely largely on the work of assistants when preparing and researching cases. This is similar to the role of clerks at the Supreme Court that fulfil a similar responsibility. Justices also rely on their clerks for authoring judgements, both Peppers (2006) and Ward and Weiden (2006) conclude.

Another similarity is the role assistants have at the *certiorari stage* (the stage whether a case is decided as being admissible or not). Both Ward and Weiden (2006), and Peppers (2006) do conclude that — if any influence exists — the influence is most prominent there. Judicial assistants in the Netherlands also have this responsibility. Holvast (2017) analysed the role assistants have in deciding if, when and how to adjudicate a case. For example, assistants decide whether a case is reviewed by a single judge or a panel of judges, based on criteria that “provide room for interpretation on certain topics” (p. 104). This power to influence is most notable in simple cases, where the judicial assistants decide a case can be completed without a hearing and the judge receives a draft judgement before even having seen the merits of the case. Holvast (2017) found the same: “judicial assistants control the progression of a case within the court” (p. 230).

An important difference between U.S. literature on the Supreme Court and the Dutch judiciary context is the direct connection judges have with their assistants. While at the Supreme Court, judges can appoint their

assistants who work exclusively for them, in the Netherlands judges share a pool of assistants. Mascini and Holvast (2020) make an important observation regarding this: studies based on an intimate, direct bond between judge and assistant cannot just be generalised to situations in which this bond does not exist. Additionally, the appointment of judicial assistants is highly politicised in the United States, and studies "using principal-agent theory to explain assistants' influence, in this specific setting, focus particularly on justices's selection of assistants as a tool to control adverse selection and on the congruence of the political attitudes between assistants and justices." (p. 2).

Europe

The Consultative Council of European Judges (CCJE) conducted a survey in 2019 on the role of judicial assistants among members of the Council of Europe members.[4] This survey contains the most recent, thorough overview of how courts are supported by assistants throughout member states. Sanders (2020) reviewed the results from this survey. A few notable conclusions from her (comparative) analysis are discussed below.

Judicial assistants rarely plan to have a long, permanent career as an assistant. For many assistants, learning on the job (from judges) is an important motive. When comparing this to the U.S. context, especially to law clerks at the federal level, we see a similarity. Clerks are often employed for a short term (one to three years) before continuing their career. For clerks, gaining experience and education is an important motive; clerkship is a stepping stone before continuing to teaching, commercial practice or working in government (Peppers, 2006).

In the Netherlands, we can recognise similar features. There is an active pool of student judicial assistants (*buitengriffier*) who work at district courts to gain experience and education. On the other hand, there are judicial assistants that have been employed for their entire career — and will be so until retirement. Generally speaking, higher courts and Courts of Appeal employ more experienced judicial assistants (see section 3.B.IV. for descriptive statistics on the experience of judicial assistants in administrative courts). Overall, courts often have a pool of assistants with mixed experience (Holvast, 2017 p. 167).

Sanders also concludes that, in most countries, assistants actively draft decisions. This is a practice not different from the Netherlands or in the United States. In some countries, assistants conduct work independently, such as hearing cases or even make intermediate decisions. However, this is only the case in a minority of countries such as Bosnia and Herzegovina, Croatia, Finland, Iceland, the Czech Republic, Sweden and Slovenia. This is not the case in the Netherlands, where almost all work is signed off or under the active supervision of a judge. In most countries, judicial assistants are not present in deliberations. This is different in the Netherlands, where judicial assistants are often present (which helps them when drafting the judgement) and often — in the case where a case is presided over by a single judge — conduct the deliberations with that judge.

4 All replies can be found at: https://rm.coe.int/compilation-all-replies-/16809463ff.

International context

There is various research conducted on the role of assistants on an international level.[5] For example, in the context of rulings of the World Trade Organisation (WTO), Pauwelyn and Pelc (2019) conducted text analysis to determine the authorship of rulings.[6] They found that the WTO secretariat "exerts significantly more influence over the writing of WTO panel reports than panellists themselves" (p. 1). Important to note in this context is that panellists retain a temporary position (they are agreed upon by disputing parties), while employees of the secretariat are permanently employed.

Another example can be found at the level of the Court of Justice of the European Union (CJEU). At that level, judicial assistants (also called *référendaires*) perform similar tasks as judicial assistants in the Netherlands, such as drafting judgements and opinions when their judge is presiding a case (Kenney, 2000). Kenney notes that the institutional and social context is such, that it allows them to be much more powerful than clerks in the U.S. Supreme Court. This is mitigated by the "single collegiate judgement", which does not allow for dissidents (p. 620).

Jensen (2020) reviewed the role of 'tribunal secretaries' at arbitral tribunals. He found that secretaries perform roughly the same tasks as their national counterparts: "support arbitrators in the entire conduct of the arbitration up to the rendering of the arbitral award" (p. 16). He noted that the power of secretaries might be greater at arbitral tribunals because of the "flexible procedures tailored to the parties' specific agreements and needs". He even called for more transparency around the appointment of secretaries, and only employ secretaries with the consent of the involved parties.

B. During which steps of the decision-making process can judicial assistants exert influence?

From the first moment a case is submitted to a court, judicial assistants are involved in the legal procedure. For example, in Dutch courts, some judicial assistants advise on whether a case is brought to a hearing, or whether it can immediately be decided upon within a hearing. There are more ways in which an assistant can influence the outcome of a case. These ways are the topic of review in this section.

By exploring the various steps during which an assistant could exert influence, I try to give an overview of existing quantitative research, and find starting points for my own research. I therefore split this section up in two subsections: the first subsection describes the journey of a case through court, from the moment it is submitted until the verdict is sent out. In the second section I review quantitative research on the influence of judicial assistants during these steps.

I. Description of the journey of a case through court

In the Dutch context, Holvast (2017) conducted research that was ethnographic of nature. By observing day-to-day proceedings in court and the decision-making process, she was able to closely analyse the relationship between judge and assistant, and look for signs of influence. She concluded that "judicial assistants can steer

5 The following examples were found through Creamer and Jain (2020, p. 43). For more examples and a thorough examination of the role of judicial assistants on an international level, see Baetens (2019).

6 The type of analysis is similar to the research of Yoon and Rosenthal described in section B. It belongs to a school of methods called 'stylometry'.

judges in a certain direction" (p. 201), for example by memos they produce, by composing draft judgements, and by being a soundboard for judges in complex cases. The potential of influence does not mean that judicial assistants knowingly influence judges; it merely means that judges are susceptible to influences of their assistants.

Holvast identified three different ways where "judicial assistants' involvement affects the judicial decision-making process" (p. 200):

1. **Judicial assistants control the progression of a case within the court.** Multiple moments exist when this happens. For example in administrative law divisions, judicial assistants screen cases and determine the amount of time a hearing should receive and whether the case should be assigned one or multiple judges. After hearings, judicial assistants draft decisions. The speed with which they do so, compared to the deadline for publishing a verdict after hearing, determines the amount of time a judge has to proofread a verdict and how often corrections can be made.
2. **Judicial assistants steer the judges in a certain direction.** During pre-trial preparations this could happen through methods such as writing memos, recommending possible outcomes or ordering relevant case files in such a way that certain arguments are presented with a higher priority. Post-trial this could occur when drafting judgements by including certain references to case law or the framing of arguments.
3. **Judicial assistants provide judges with additional views to consider.** This happens often post-trial, for example when assistants serve as discussion partners for judges when deciding on the outcome of a case.

Additionally, the Consultative Council of European Judges (CCJE) (2019) identifies four types of work done by judicial assistants that are related to the decision-making process. These four types of work were taken directly from their opinion:

1. **Organising papers and researching facts**, for example by prioritising relevant documents submitted for the judge, or by performing pre-trial investigations;
2. **Drafting decisions or writing memos with a proposal for a decision**, for example by providing an overview of relevant case law before trial, advising which facts or arguments should be reviewed by the judge, or even recommending the outcome of a case;
3. **Independent work on cases**, for example in the context of routine cases or repetitive procedural steps such as appointing an expert or calculating costs of proceedings;
4. **Work in the selection of cases for appeal or constitutional review**, for example in the context of supreme or constitutional courts where they help identify cases that do and do not require specific attention from judges.

The basis of the CCJE opinion was a survey conducted amongst members of the Council of Europe. Sanders (2020) analysed that survey, and created a scale on which the involvement in the judicial process can be arranged, which corresponds with the amount of influence an assistant can exert: "(1) only doing research, (2) moving on writing memos, and (3) drafting decisions. Then, (4) judicial assistants contribute in deliberations, (5) take an active and even visible role in hearings and might then, (6) on the other side of the scale, hear and decide certain cases themselves with the approval of a judge."

Combining the insights from the CCJE, Sanders and Holvast, a schematic overview of the journey of a case and the tasks of judicial assistants in that process can be constructed (table 2.B.II.). In the next section, I enriched this schematic overview with an overview, per step, on existing quantitative or experimental research on the influence assistants can exert.

II. Quantitative research on exerting influence during the judicial decision-making process

In the previous section, I described the various steps a case takes within a court by reviewing theoretical and ethnographic research of the judiciary. In this section, I will review quantitative research on the influence of judicial assistants during the decision-making process. I use the steps in table 2.B.I. as a guideline to structure this section.

Submission of case to a court

I have not found any quantitative research on the role of judicial assistants when a case is submitted. For example, research that analyses whether a case is admitted or not (in the U.S. Supreme Court context) or whether a case is handled by a single judge or a panel (in the Dutch context). Holvast and Mascini (2020) suggested further research on this topic as well: “it would be worth conducting experiments that assess the extent to which assistants wield influence via duties other than preparing bench memos. The influence wielded by memos in the process of reviewing requests for review (at the US Supreme Court petitions for certiorari) could, for instance, be a worthy focus for an experiment” (p. 17).

Pre-trial

The influence of the ‘bench memo’ — a preparatory document for judges that describes facts, evidence and merits of a case — is researched by Holvast and Mascini (2020). They conducted a survey-experiment among 63 judges through which they measured the involvement of a judicial assistant in the decision-making process. The researchers divided the pool of judges in three groups. The first group decided on the case without a bench memo, relying purely on their own interpretation of the merits of the case. The second group decided on the case with a memo suggesting to rule in favour of the plaintiff. The last group decided on the case with a memo suggesting to rule against the plaintiff.

They found that the bench memo explained 16.7% of the total variance in the judge’s decision, meaning that an opinionated bench memo written by an assistant has a significant effect on the outcome of a case ($p < 0.01$). In their research, they controlled for various variables such as the perceived risks and benefits of involving an assistant, their orientation towards the rule of law, and the courts they were employed in. In the same research, Holvast and Mascini asked judges to self-report on the influence of judicial assistants in their last case. 61.3% of the judges responded that assistants have (very) considerable influence on the case.

During trial

Like in the submission phase, there is little quantitative or experimental research conducted regarding the influence of judicial assistants during trials. In the Dutch context, Holvast (2017) mentioned that she observed judicial assistants reminding judges on procedural matters or a judge asking for advice from the assistant (p. 124). However, there is no research that examined this more closely.

One important role of assistants during trial is creating the record. In the Dutch context, this task is codified in law. The record is a direct reflection of what happened during the trial. It can be used to draft verdicts and is sometimes submitted to a higher court when a case is appealed. No research has been done on the role of these records in the decision-making process. There is, though, an extensive body of legal research and writings on the role and importance of (accurate) records (i.e. Timmerman, 2018; Den Tonkelaar & Visser, 2018; Dubelaar, 2014 chapter 10.3.1.3.).

Post-trial

Rosenthal and Yoon (2011) performed a text analysis on U.S. Supreme Court judgements to find out who authored judgements. It is known that judicial assistants in the Netherlands author draft judgements. The authors analysed function words used in judgements to see who authored the judgement. They concluded that it was possible to see which justice authored a judgement based on the function words they used and saw that — over time — the variable writing style of justices increased. That may indicate "greater reliance on their law clerks when writing opinions" (p. 1).[7] However, although writing (and style) may be done by assistants, this does not automatically mean that the outcome of the case is also decided or influenced by the assistant. Judicial assistants authoring draft verdicts is a widespread practice in the Netherlands.

A similar method of linguistic analysis was conducted by Pauwelyn and Pelc (2019) (see section 2.A.II for more details on the context of that research). They found that they could attribute the authorship of texts not to the panellists of the WTO, but to the secretariat. This indicates that the penmanship — and with that the choice of words — was not with those that decide on the merits of a case. They also found a relation between the experience of WTO staff and the length of reports (p. 33):

> *"When WTO staff, especially younger, less experienced staff, draft reports (instead of seasoned adjudicators themselves), language may become more technical and convoluted. This effect may be heightened when staff are assigned to, and draft for, the panel or AB division as a whole, instead of individual adjudicators."*

While the authoring draft judgements does not immediately influence the outcome of the case at hand, it does influence the understanding of the case in appeal, its interpretation by academics and the way future judges (and assistants) may use the verdict as case law. As Thirlway (2006) puts it: "Law is a matter of words; and it may be said that the choice of words to convey a legal point is in itself the decision of, or a decision on, that point." Additionally, the process of writing a verdict also allows the author to reflect on the facts, evidence and merits of the case. It happens that, while writing a verdict, the author reconsiders their initial decision. Holvast (2017) observed this during her research. This is one quote taken directly from her research (p. 152):

> *"A few months ago, that was also with [name of judge]. The judge said, 'This and that, dismissed.' I said, 'Well...' But okay, then I looked at it, okay, it is going to be dismissed. I searched for everything, case law. It was about the principle of trust, and I thought that the appellate court had said something about it. I put everything together, and then I concluded: a dismissal is not going to work. So, I went*

7 Similar results were found by Carlson, Livermore and Rockmore (2016) for the US Supreme Court, and for the Canadian Supreme Court by Bodwin, Rosenthal and Yoon (2013). To my knowledge, this type of textual analysis has not yet been done in the Netherlands.

back to [name of judge], grumble, grumble... And then I wrote it as such that the appeal was upheld. And, yes, that made sense. That happens every now and then." (resp. 58)

Holvast (2017, p. 151) concluded that the more experienced an assistant is, the more likely they are to develop their own style of writing. Posed differently, inexperienced assistants write more conforming to the norm whereas more experienced assistants have their own take on judgement writing. In the Dutch context, there are quite a few default phrasings that occur in verdicts which are also taught in writing courses. As Holvast puts it: "While judicial assistants in the beginning quite strictly follow the style and format they were taught in the courses, various senior assistants mention that they later on developed individual styles;" (p. 151).

Research has been conducted regarding the importance of groups making decisions instead of individuals in the context of a case in criminal law. Research from Bauw, Van Dijk and Sonnemans (2013), with students (without legal background) instead of judges having to make a decision on a case, showed that a decision based on a majority of individual decisions led to a better decision than having one individual make a decision. There is much to say about the representativeness of their research (the research subjects were students without legal background, they were not trained in making decisions, et cetera), but the conclusion of their research is a starting point to conduct more experimental research on decision-making processes among judges. More specifically, they found that group discussions (*raadkameren*) did not lead to a better decision, It did, however, lead to more unanimous decisions.

The other steps a case takes after trial have not been subjected to quantitative or experimental research. Some of the steps, such as the role of judicial assistants during deliberations or sound boarding, are suited to be researched in an experimental context (see section 5.B. for an overview of future research).

Conclusion

There is some quantitative research available on exerting influence during the judicial decision-making process. The research that exists is mainly focused on the writing of judgements, and on the bench memos written by assistants. A schematic overview based on the literature in section I, and the quantitative/experimental literature in this section, can be seen in table 2.B.II. When looking at this table, one first notices the notable lack of quantitative and experimental research on the influence of judicial in the decision-making process. This is the answer to the first sub-question of this paper: "What quantitative or experimental research on the influence of judicial assistants on the decision-making process is still missing?"

Table 2.B.II. Journey of a case through court and whether quantitative research has been conducted

Step in process	Tasks performed by assistants that could influence the decision-making process	Extent of influence measured through quantitative / experimental research?
Submission of case to a court	Decides whether single-judge or panel handles the case; determines amount of attention the case receives from the court.	No.
	Decides amount of time scheduled for hearing; determines amount of time litigants have for oral arguments.	No.
Pre-trial	Structuring court files, the order of which determines which information judges see first.	No.
	Is the main contact person for litigants; gives assistants the opportunity to ask questions on content-related matters or suggest settling.	No.

	Write memo's to help the judge prepare for hearing; can present certain facts, evidence and arguments as particularly important which could lead to bias, especially when the judge solely reads the memo or the memo contains a recommendation on the outcome of the case.	Yes, Holvast and Mascini (2020)
	In certain cases, conducts pre-trial investigations; decisions directly taken by assistants that influence the proceeding of a case.	No.
During trial	Can give judges advice, although mainly on procedural matters.	No.
	Is sometimes given the opportunity to recommend questions to litigants.	No.
	In some jurisdictions, is allowed to participate or independently conduct hearings.	No.
Post-trial	Participates in deliberations, although mostly passive; can direct attention to certain arguments, provide new views or present case law.	No, but there is some indicative, exploratory experimental research done by Bauw, Van Dijk and Sonnemans (2013).
	Drafts judgements; allows them to spend more or less text on certain arguments, evidence and motivations, limits space to consider other arguments.	Yes, but mainly textual analysis to prove authorship, i.e. Rosenthal and Yoon (2011), Carlson, Livermore and Rockmore (2016), Bodwin, Rosenthal and Yoon (2013) and Pauwelyn and Pelc (2019). No experimental research has been conducted.
	Provides sound boarding for judges on particularly complex cases; by being discussion partners for judges, assistants can directly influence them through new arguments or highlighting particulars facts from the case.	No.

C. What factors influence the extent of the influence of a judicial assistant?

In the previous section I explored during which steps judicial assistants could exert influence (culminating in a schematic overview seen in table 2.B.II). In this section, I will explore literature on the factors that determine the extent of the influence. When and why do assistants influence the decision-making process? Is this a conscious decision or done by accident?

The starting point for this section is Holvast's (2017) seven factors that could determine the extent to which a judicial assistant has influence on the decision-making process. Those factors are (p. 163):

1. Trust between judge and assistant
2. Role perceptions of judges and assistants
3. Experience and expertise of both judge and assistant
4. Career perspectives and ambitions
5. Type and complexity of cases
6. Single-judge or panel decision-making
7. Time pressure and workloads

Another factor that determines the extent of influence of a judicial assistant is *time*. Not the time that can be spent on a case, but the moment when the case happened. From the literature in the previous section, I learn that the role of judicial assistants has evolved over time. More than a decade ago, judicial assistants were often seen as secretaries. Now they fulfil the role of legal expert, and actively assist judges in the decision-making process. In the United States, this was also seen by Rosenthal and Yoon (2011), who analysed stylistic variance in verdicts over time. A judicial assistant employed hundred years ago, will — most likely

— have had less influence over a judgement than a judicial assistant employed at this time. Concluding, another factor that determines the extent of the judicial assistant is *time*.

In the international context, Kenney (2000) identified various factors which determines the amount of influence assistants have at the CJEU. These were: “the length of time that référendaires serve, along with their often considerable age, experience, expertise, knowledge of the institution, and linguistic competency, when coupled with the shorter term of members of the ECJ [*part of the CJEU, red*] and a potential lack of expertise in language, judging, or EC law” (p. 619). These factors — except for the language factor — also apply to the Dutch context.

The most relevant quantitative research in the Dutch context on these factors was done by Mascini and Holvast (2020). They surveyed 80 judges to determine the impact of some of these factors. They divided these factors in two categories: factors related to principal-agent theory and factors that explain the context of a case. More specifically, they researched all seven factors mentioned by Holvast, except for the career perspective and ambitions of the assistant. They found that there are three factors that determine the outcome of a case (p. 15): the managerial role orientation of the judge (ß = 0.23, $p < 0.05$), the trust between judge and assistant (ß = 0.43, $p < 0.01$) and the perceived risk-benefit of involving an assistant in the decision-making process (ß = 0.21, $p < 0.05$). With their model, they were able to explain 45.8% of the variance in their dataset.

Theoretically speaking there are other factors that could explain the influence a judicial assistant might have in the decision-making process. There are direct effects: for example, certain legal arguments might be perceived as more persuasive for some judicial assistants than others. Indirect and interaction effects also exist: for example, the culture among judges within a panel could enhance or decrease the involvement of the assistant in pre-trial or post-trial discussion. Political ideology could play a role as well, especially in combination with the political ideology of the judge they work for; most research on this topic has been conducted in the U.S. Supreme Court context (see Bonica et al., 2016).

There is a broader corpus on research on what could influence judicial decision-making process. The role of the judicial assistant is not included in that research, but the role of other actors are. For example, Šadl and Sankari (2016) measured the influence of Advocate Generals (AG) at the ECJ. They measure *implicit influence* by considering several parameters, of which the advice of the AG and the actual outcome of the case are two. Their theory is that an advice that corresponds with the outcome of the case means that the AG had influence; an advice and outcome that are not similar means that the court deviated from the advice of the AG, therefore the advice did not have any influence.

Another, more technical piece of research was conducted Medvedeva, Vols and Wieling (2020). They used machine learning to predict decisions of the European Court of Human Rights. They looked at multiple factors, such as the frequency of certain words combinations (*n-grams*), the time at which the ruling was made and the judges that handled the case. They found a significant effect for each of these three factors, depending on the subject matter of the case. In the end, they were able to predict the outcome of a case with 75% accuracy. The other variation could be — in part — due to the involvement of assistants.

D. Concerns and advantages of judicial assistants their participation in the decision-making process

In the previous sections I described the increasing participation of judicial assistants in the judicial decision-making process both in the Netherlands and in other jurisdictions. I also described the judicial decision-making process in the Netherlands, and the steps during which assistants could exert influence. Finally, I described which factors determine the extent of this influence. Until now, I concluded that the participation of judicial assistants in the decision-making process has increased over the past two decades. This increase in participation is both criticised and welcomed by academics.

The relevance of this research lies in the question if assistants should have a role in the decision-making process and, if so, the extent of that role. The disagreement over answering that question alone, makes the topic worth researching. In order to give the reader proper context of that discussion, discussing the concerns and advantages of judicial assistants in the decision-making process is important. Therefore this section contains a description of both the advantages and concerns academics have expressed of involving judicial assistants in the decision-making process.

I. Concerns towards involving judicial assistants in the decision-making process

Holvast (2017, p. 16-24) extensively discusses six concerns regarding the position of judicial assistants, of which two are further discussed in this section. The two concerns discussed in this section are related to the quantitative analysis done in this paper (see section D and chapter 4) and are particularly relevant for the Dutch context in which judicial assistants operate. The six concerns Holvast discusses are:

1. Firstly, the position of judge is special, and surrounded by important safeguards. The position of judicial assistants does not enjoy similar safeguards. That is a threat to the rule of law.
2. There will be a more legalistic type of adjudication because judicial assistants are more included to follow general guidelines instead of making their own decision. That decreases the individualistic nature that some cases require. Additionally, it hampers the law-making ability of the judiciary.
3. Judges adjudicate, assistants do not. The sense of responsibility a judge might feel if they do not prepare and write judgements decreases. That might affect the quality of their decision.
4. Intuition, not careful consideration of arguments from both sides, might become the dominant factor in deciding a case. Judges writing their own judgement, forces them to reconsider the case. When an assistant writes a judgement, the judge is relieved from that responsibility.
5. Judicial assistants affect the outcome of decisions because of their own ideological interests. Although the risk also applies to the Dutch context, it is less of a concern because judges are not politically chosen, Holvast concludes.
6. Judges become managers, because they need to manage assistants adjudicating for them, instead of adjudicating themselves.

The two concerns discussed further on in this section are the safeguards around the position of the judge (concern 1) and the legalistic type of adjudication (concern 2).

Safeguards around the position of judges and judicial assistants

In the first section, I described which tasks and duties of judicial assistants are and are not codified in the Dutch context. While some laws contain specific responsibilities of an assistant in legal procedures (for

example, co-signing a verdict together with the presiding judge), many are not. Baas (2019, chapter 7.7.3) noticed that some judicial assistants actively participate in debates with judges regarding the outcome of verdicts, while other judicial assistants only do menial secretarial tasks. On the one hand, this provides the judiciary leeway to adapt the role of assistants to their current needs (‘an agile organisation’). On the other hand, if it is unclear for outsiders what the exact tasks and duties of a judicial assistant are, it makes it difficult for outsiders to understand the extent of the influence a judicial assistant could have.

To combat this concern, the role of the assistant could be subjected to more formalisation. This would make it more clear what their tasks and duties are (and are not) and, in turn, would make it more clear during which steps of the decision-making process assistants could exert influence. For example, it is now an informal practice that assistants authors draft verdicts. Formalisation of that task starts the discussion if it is necessary to increase safeguards around that task and, if so, how that could be achieved. Another example is the transparency surrounding side jobs of judicial assistants (i.e. teaching at a university, commercial practice, or a board membership at a local association). Judges have to publicly disclose their side jobs and professional historical experience; judicial assistants do not. A strong safeguard to ensure the independency of judicial assistants could be to disclose this information.

The concern regarding the safeguard of the position of assistants becomes even more pressing when reviewing recent initiatives to extend the duties and tasks of assistants. For example, the recent pre-advice by Stoepker and Schulmer (2020) called for an experiment where the pre-trial investigation in administrative law (*vooronderzoekscomparitie*) would be led by someone else than an administrative judge, such as the judicial assistant. Holvast (2021) reviewed that advice and expressed concerns on the (lack of) safeguards currently surrounding the position of judicial assistants in case they would receive a formal leading role in pre-trial investigations.

The legalistic type of adjudication of judicial assistants

Related to the fifth concern — the more legalistic type of adjudication judicial assistants have — is an increasing trend to focus on *recours subjectif* in Dutch administrative law. *Recours subjectif*, the opposite of *recours objectif*, is a doctrine that includes a strong focus on the personal position of participants of a procedure. When judging in a *recours subjectif* style, the judge tries to find a remedy that is suitable to all participants. This contrasts with *recours objectif* where the judge safeguards “the abstract legal order against unlawful infringements” (Van den Berge, 2017 p. 1). In other words, *recours objectif* prioritises legality, while *recours subjectif* prioritises legal protection (Barkhuysen, Den Ouden & Schuurmans, 2012).

Judicial assistants — generally speaking — have less experience than judges (Hol, 2001). This is also seen in the dataset collected for this paper.[8] Following a *recours objectif* doctrine is easier; the margin of error is smaller because there is a large amount of information, articles and case law available for assistants when drafting a judgement. Taking context into account and following a more personal approach, an ‘all things considered’ *recours subjectif* approach is more difficult for an inexperienced assistant. It is a process not taught in law school. It is a decision based on experience.

8 On average, judges presiding a trial have 6461 days of experience compared to 3328 days of experience for a judicial assistant. See section 3.B.IV for more information.

Posner (1985) thinks that relying on judicial assistants will result in a type of adjudication that relies more on statutes and case law: a more legalistic type of adjudication. “U.S. Law clerks are young and have not acquired any substantial experience in legal practice. They would, therefore, be more likely to build up an argument by referring to authority. Clerks are ‘timid jurists’ who ‘feel naked unless they are quoting and citing cases and other authorities’” (Holvast, 2017 p. 22 quoting Posner, 1985 p. 108/109). Holvast continues: “An indication of this actually occurring in the US is that judicial decisions have become lengthier, more technical and contain more footnotes” (Holvast, 2017 p. 22 referencing Posner, 1985 p. 112).

An example can be found in the observations of Holvast (2017). She concludes that, with some exceptions, “assistants are often allowed a large amount of autonomy in writing judgments, and it can even be difficult for them to receive additional instructions from judges.” (p. 157). Although the outcome of a verdict could still be decided by the judge, the method of writing a verdict — a personal, case-based approach or a large number of references to law, previous articles and academics — is up to the assistant. This might be counterproductive to a general shift from *recours objectif* to *recours subjectif*.

As far as I know, there is no quantitative research done on referencing law and case law (in the Netherlands), and whether it correlates with the experience of the assistant.

II. Advantages of involving judicial assistants in the decision-making process

Holvast (2017, p. 16 to 24) also extensively discusses multiple advantages regarding the position of judicial assistants, of which three are further discussed in this section. They are relevant for the quantitative analysis done in this paper (see section D and chapter 4) and are particularly relevant for the Dutch context in which judicial assistants operate. The seven advantages Holvast describes are:

1. Employing assistants can increase efficiency. Judicial assistants help with trivial and repetitive tasks that allow judges to better focus their time and expertise on matters only they can do.
2. Involving assistants in a case can decrease biases. Assistants give judges a second perspective on the case at hand through their bench memos and draft judgements. This can help combat biases among judges and helps judges to look at cases from a different perspective.
3. Assistants can function as sparring partners for judges. This helps judges in their professional reflection when dealing with a difficult case, without having to involve another judge or outsider.
4. Assistants are legal experts like judges. They — like judges — also read up on the latest case law and academic articles. Often, they are also employed within a specific section of the court, specialising in a type of law, while judges are typically generalists. They additionally do a first check whether procedural requirements are met. All of this can increase the quality of judgements.
5. Having assistants work on cases can help assistants in their professional development. Like paralegals or junior lawyers employed in law offices, future judges must start somewhere. A position of judicial assistant in a court could be an important career step for a future judge.
6. Judicial assistants rotate between judges. This means that they see multiple judges apply the same law. Because of this, assistants can enhance the principle of equality before the law.
7. Holvast also observed that “assistants, at times, support maintaining the image of impartiality of the judge by functioning as a buffer between judges and litigants when contact between these parties is needed” (p. 211).

Most of these advantages, like the concerns, have been extensively discussed in existing literature and do not need any further analysis. In the Dutch context, there have been specific developments that justify discussing three advantages more extensively. These are efficiency (advantage 1), professional reflection (advantage 3), and the apprentice model (advantage 5).

Efficiency: assistants are everywhere, right?

Assistance is common in all professions. In politics, memos for ministers are prepared, and speeches are written by civil servants. Doctors do not do everything themselves either. Medication is often administered by nurses, and simple medical procedures are handled by doctor's assistants. And lawyers preparing for big cases receive help from junior lawyers, paralegals and their administrative staff. Why should that be any different for the judiciary?

Many collectivists and libertarians think alike on that matter: overspending public money where it is not required is a waste. Efficient allocation of resources is a political-neutral philosophy. However, in the context of *new public management* and *corporations*, efficiency is often seen as negative. But where tasks can be done more efficiently by others than judges, there is a potential for a more optimal allocation of resources. Realising that potential should be explored.

Although it is a waste to allocate tasks to judges that could also be done by judicial assistants, a few precautions need to be taken. The special task of the judiciary — adjudicating conflicts — calls for special safeguards. Like a nurse can only administer medication prescribed by a doctor, a judicial assistant should only write verdicts of which the decision is made by a judge. A nurse is still required to follow special education before she can work with patients; the position of a judicial assistant alike should be safeguarded with checks and balances to ensure impartiality, skill and integrity.

Abram et al. (2011) painted a picture of what the ideal cooperation between judge and judicial assistant would look like. The term *assistant* was quickly replaced by *legal advisor*. The advisor would provide "the legal advisor presents facts, ideas and opinions in comprehensible and correct language in writing and has a sharp legal analytical ability. He is able to signal possible problems and make connections. In addition, he is properly able to distinguish primary and secondary issues." (p. 17). The advisor helps a judge to navigate a world that becomes more and more complex. In return, the judge receives more time to work on what they should do: adjudicate.

a manual as to how to give instructions, neither are there manuals as to how to interpret instructions. Instructions to judicial assistants given by judges, for example when writing draft verdicts, are the most important instrument for a judge to ensure a desired outcome. Holvast (2017, p. 143) observed that there are judges that — almost — dictate assistants what the text of the verdict should be like. She described that one of the standard sentences pronounced by judges is: "*You'll figure it out, right?*". If judicial assistants are given a formal task to draft judgements — the practice in various district courts — judges should be aware of a new responsibility: to give useful instructions to their assistants. While judges excel at adjudicating, this does not guarantee an effective style of leadership.

The CCJE's opinion on judicial assistants also notes efficiency as an important rationale for employing judicial assistants (CCJE, 2019). It specifically mentions that deciding cases in a "timely and cost-efficient way is an important goal for every judiciary. Moreover, the quality of judicial decisions after a fair

consideration of the issues is an essential aspect of an efficient judiciary." (p. 3). It also remarks that assistants are *not* part of the court, and hence it should not be used to replace appointing sufficient judges to oversee the quality of verdicts and ensure fair trials.

Professional reflection

In reaction to two (or more) parties arguing what ought to be right, a judge is expected to deliver justice in that conflict. While in multi-judge panels this responsibility is shared among judges, in a single-judge case it is carried by one judge alone. One of the judges interviewed by Holvast (2017, p. 141) said the following about this:

> *"There was a hearing, and, for some reason, I did not have any judicial assistance [except for someone to create the court record]. Everyone was fully booked, and the idea was that judges would get only half a hearing and do everything themselves. I realised that I really missed a discussion partner then. (...) I really missed someone to write the judgments. That, too. (...) But I mainly noticed that what I really miss is the exchange of thoughts. I didn't expect that to be such an issue."*

A judicial assistant with whom a judge can discuss the case, helps judges in dealing with that burden. By involving an assistant in the merits of a case — and even allowing them to write draft judgements — judges get an 'external'[9] opinion on the case at hand.

Apprentice model

In contrast to popular belief, judges do not just spring out of holes in the ground![10] Ward and Weiden (2006) argue that law clerks originated from an apprentice model for legal education. In the Netherlands, a judicial assistant can also be a judge in education (*rechter in opleiding*). Holvast (2017, p. 67) found in her research that judges and judicial assistants alike find the "unique experience of gaining a deeper understanding of judicial decision-making" an important factor in becoming a judicial assistant. Having judicial assistants be actively involved in the decision-making process contributes greatly to that understanding.

With more and more judicial assistants having academic law degrees (Abrams, 2006), it makes sense that aspiring judges, lawyers or legal professionals want to gain experience in the judiciary. Only performing administrative or secretarial tasks, such as recording proceedings, does not fit the academic profile judicial assistants currently have. There is also value to educate aspiring legal professionals in the position of judicial assistant: having them experience the process of adjudicating helps to gain a more thorough understanding of the legal process. The CCJEs opinion on judicial assistants also notices the importance of working as a judicial assistant as a source of experience for young lawyers and future judges (CCJE, 2019 p. 3).

9 'External' in this context means someone that does not have the same responsibility but is knowledgeable enough with the facts of the case to discuss the case within detail.

10 See J.R.R. Tolkien's Lord of the Rings.

E. Theoretical framework as starting point for quantitative research

I. Summary & intermediary conclusions

Reviewing what we know until now: in the past two decades, the role of judicial assistants in the Dutch judiciary has changed. While their role used to be secretarial of nature, assistants are now legal partners for judges that author draft verdicts, write memos and act as discussion partners in complex cases. Quantitative and ethnographic research confirms this.

This is not a new trend, as shown in section A. Earliest literature on the topic of judicial assistants is found in the United States, on the role of assistants at the Supreme Court. While the U.S. and Dutch context are not one-on-one comparable, the U.S. context does provide us with examples of the active role assistants *could* play within courts. In jurisdictions across Europe and in courts in international levels (and their arbitral counterparts), we see similar trends. Judicial assistants can exert considerable influence over the procedure and merits of a case. Their role is often not codified and their tasks customary of nature. Generally speaking, we can conclude that throughout jurisdictions and contexts, judicial assistants often have options to influence the judicial decision-making progress. Additionally, in the past decade there has been an increase in literature studying the role of assistants in jurisdictions and contexts besides the existing corpus of U.S. based literature.

In section B, I answered the first sub-question of this paper: what quantitative or experimental research on the influence of judicial assistants on the decision-making process is still missing? I identified four phases a case goes through in a court: submission, pre-trial, trial and post-trial. By reviewing existing literature to these four steps, I concluded that there is little quantitative or experimental research conducted on the influence judicial assistants (could) exert in these steps. Table 2.B.II. contains a schematic overview of all moments an assistant could exert influence and the quantitative and experimental research conducted thus far.

The research that does exist can generally be grouped in two categories: text analysis indicates that judicial assistants — in various contexts — greatly influence the use of language of verdicts. Often they draft first verdicts, leaving a lasting impression on the phrasing of verdicts (i.e. Rosenthal and Yoon, 2013). This is an important type of influence, since law is — in essence — linguistic of nature. The second category of research is experimental of nature. Through an experimental survey among judges with bench memos, we can conclude that judges's decisions can be affected by the recommendation assistants make in their memo (Holvast and Mascini, 2020).

Section C. contains an overview of the factors that can determine the extent to which judicial assistants could have influence; this is also the answer to the second sub-question of this paper. In sum, many factors are theorised by various academics. These factors, among others, are: trust between judge and assistant, role perceptions of judges and assistants, experience and expertise of both judge and assistant, career perspectives and ambitions, type and complexity of cases, single-judge or panel decision-making, time pressure and workloads, time during which the case was held, proficiency of the judge and assistant in the language the verdict is written (especially important in international contexts), and political ideology of the assistant and the judge they work for.

Empirical research on the topic by Mascini and Holvast (2020) based on a survey among Dutch judges showed three factors to be relevant determinants: the managerial role orientation of the judge, the trust between judge and assistant and the perceived risk-benefit of involving an assistant in the decision-making process. They found that the experience of the assistant and judge and whether the case was brought before a panel or a single-judge were not significant determinants.

Finally, in section D. I reviewed the concerns and advantages academics have expressed regarding involving judicial assistants in the decision-making process. More professional reflection, efficiency and educating future judges are important reasons to involve assistants in the decision-making process. Concerns generally deal with the safeguards around the position of the assistant, the independence of the judge and the different type of adjudication assistants might have. The active debate in academia surrounding the position of judicial assistants makes this topic important to further explore.

II. A basis for exploratory quantitative research

Based on these intermediate conclusions, I see a large number of options for quantitative research (see table 2.B.II for a full overview). More specifically, I identify three analyses that have not yet been done in the Dutch context:

1. Literature suggests that the experience of assistants has an effect on the length of verdicts (Pauwelyn and Pelc, 2019). A study on this is not yet done for the Dutch context. The hypothesis would be that longer texts should negatively correlate with the experience of assistants.
2. Literature also suggests that greater reliance on judicial assistants leads to a more legalistic type of adjudication. A legalistic type of verdict can be indicated by the amount of references to case law and law to form arguments, instead of reasoning. Therefore, the hypothesis would be that, with the increase of reliance on judicial assistants, the usage of references has increased as well.
3. Finally, text analysis like Rosenthal and Yoon's (2013) has not been conducted for the Dutch context. It is a widespread, known practice that assistants author draft judgements. Holvast (2017, p. 151) concluded that the more experienced an assistant is, the more likely they develop their own style of writing. Inexperienced assistants write more conforming to the norm. Therefore, the hypothesis would be that the originality of the verdict should positively correlate with the experience of the assistant.

Chapter 3 contains a methodological explanation of how the dataset for these analyses was collected. The chapter also contains an explanation of each type of analysis. Chapter 4 contains the analysis and the results.

3. Methodology for quantitative research

At the end of the previous chapter, I identified three types of analyses that have not yet been conducted in the Dutch context. In short, these analyses are:

1. The length of a verdict should be negatively impacted by the experience of assistants.
2. The more experienced an assistant is, the more original their verdicts should be.
3. The usage of references of law and case law has increased over time.

In this chapter, I describe the steps to collect a dataset to conduct these analyses. In section A, I describe my research population: verdicts in general administrative law published in 2020. Section B contains the various steps taken to enrich the dataset, for example identifying which judge(s) and judicial assistant authored the verdict and their experience. This section also contains some general descriptive statistics of the dataset. I use linear regressions for the first and second analysis, and text analysis for the last analysis. Which methods I exactly use are described in section C.

A. Research population

To do these analyses, I need verdicts; a lot of verdicts. From a dataset containing more than 2 million Dutch verdicts, I chose 4961 verdicts to analyse. In this section I justify why I selected these verdicts and which criteria played a role in that process.

The verdicts I analyse are all published verdicts issued in 2020 from administrative law courts. The cases were published by 15 different institutions, ranging from district courts to High Administrative Court of the Netherlands (*Raad van State*). Some cases were adjudicated by a single judge, others by a panel. And in some cases, the plaintiffs were rules in favour of, in others they were ruled against. In order to be able to do ensure that I measure the effect of the judicial assistant on the verdict, it is important to analyse a set of cases that was as complete as possible. That is why I took every case in administrative law available, instead of picking cases from a small subfield of law.[11]

I chose to analyse cases from 2020 for three reasons. Firstly, verdicts should be issued as recently as possible, because the role of judicial assistants has only evolved in the past two decades. Had I chosen older verdicts, the influence of judicial assistants is theorised to be smaller. Secondly, analyses on verdicts issued recently provide a more accurate, contemporary generalisable results than analyses based on older cases. Finally, law is always changing. Having verdicts be issued in a small amount of time, prevents external factors, such as changing legislation, affecting the verdict.

The choice for administrative law was made on two grounds. Holvast (2017, p. 183) describes that the role of judicial assistants in administrative courts is, generally speaking, larger than other courts of law. With not much prior research having been conducted in the Dutch context, I decided to analyse the type of law that is most likely to yield results. Not finding results in this field of law likely means that no results can be found in other fields either. Administrative courts are therefore the best starting point to look for significant effects.

11 Note that in the Netherlands, not all verdicts are made public. There are selection criteria which the Dutch judiciary uses to determine which verdicts should be made public and which should not. See section 3.B.I. for more information.

Pragmatism was the second reason: coding cases in administrative law is easy since a plaintiff can be found right or wrong, there is a relatively simple hierarchical structure in administrative law courts and the structure of administrative law verdicts is quite homogenous.

B. Data collection

I. Origin of the dataset

The actual dataset of verdicts was retrieved from the website of the Netherlands Council of the Judiciary.[12] The total dataset used contained over 2 million verdicts from 1910 to 2020.[13] Each verdict is identified by a unique ECLI. Only a small section of cases contained more information than ECLI, such as the actual text of the verdict, the decision and the legal area of the case.

Dutch courts publish around 0.19% (2007) to 0.47% (2019) of all verdicts (Raad voor de Rechtspraak, 2020). The rest of the verdicts only contain metadata. Whether a verdict is published depends on several criteria formulated by the Netherlands Council of the Judiciary. For example, all verdicts from the Supreme Court (*Hoge Raad*) are made public, while only 0.27% of verdicts from district courts are made public.

This means that the criteria I based my decisions on to select this specific population to analyse, was based on a set of cases that do not represent the average type of cases a court has. It only includes cases that are special, publish-worthy (according to the judge or assistant) or adheres to one of the other criteria formulated by the Netherlands Council of the Judiciary. This is a bias in the research population that cannot be corrected for. The discussion section contains a more elaborate analysis on the accessibility of cases and other research data at the Dutch judiciary. This bias is directly related to the selection criteria; it is likely that my dataset contains a disproportionate amount of complex cases — these are worth publishing. Cases with a very routine character will most likely not be included in the dataset.

Six outliers were removed from the dataset. These outliers were extremely lengthy verdicts (up to thirty times longer than average verdicts) due to extensive quotations from law and evidence, or because there were are a large amount of plaintiffs.[14] Removing these outliers did not affect the significance of the results of any analyses, but did allow for more assumptions for linear regressions to be met. My full dataset can be found on Github.[15]

II. Identifying judges

The dataset of verdicts from the Netherlands Council of the Judiciary does not contain formal information (such as a metadata field) on the judge(s) who issued the verdict. Instead, the name of the judge is included somewhere in the raw text of the verdict. I extracted the name of the judge(s) by using pattern recognition,

12 https://www.rechtspraak.nl/Uitspraken/paginas/open-data.aspx

13 Note that the dataset does not contain all verdicts issued by the Dutch judiciary in that time. For example, in 2019, the Dutch judiciary issued approximately 1.54 million verdicts. Only a subsection of those cases receives an ECLI and is therefore included in the dataset.

14 The outliers were ECLI:NL:RVS:2020:2706, ECLI:NL:RVS:2020:2053, ECLI:NL:RVS:2020:2439, ECLI:NL:CBB:2020:1, ECLI:NL:RVS:2020:1769, ECLI:NL:RVS:2020:3147

15 https://github.com/Jonakemon/thesis-public

using the public register of judges as a basis (Raad voor de Rechtspraak, 2021e). For example, if a judge is called ‘D.A.B. van der Waal’, I scan each verdict on that name. If that name is found, that judge is matched to the verdict.

There are a few weaknesses to this approach. First, the public register of judges is only available as a ‘snapshot’. This means that the register contains judges that are currently[16] in office but does not contain judges that have retired. For example, a judge that retired a day before the public register was consulted, might not appear in the register while their name does occur in the verdicts studied. This also means that the longer ago the verdict is issued, the higher the chance a judge is missing from the verdict (another reason to pick verdicts issued in 2020).

Secondly, a spelling mistake in a verdict or if a name in a verdict does not contain middle names — for example ‘D. van der Waal’ instead of ‘D.A.B. van der Waal’ — the name would not be recognised. To combat this, I used the fuzzy string-matching method from Elasticsearch’s match query (Elasticsearch match query, 2021). By using that, we look for names that are highly like the names from the public register. The matching query looks for spelling mistakes that are common in the language of the text; for example, the name ‘Thomspon’ and ‘Thombson’ are both recognized as ‘Thompson’.

Thirdly, if judges have identical names, we do not know which judge issued the judgement. For that reason, judges with identical names were removed from the register.[17] Fourthly, if an illogical number of judges was recognised in a case — for example 2, 4 or more than 5 judges — the verdict was discarded (0.4%).[18] Finally, I did a random manual check on 5% on the final dataset to confirm the accuracy of the method works. This resulted that in 99% of all verdicts the algorithm correctly identified the judge(s) that issued the verdict. The dataset contains 322 unique presiding judges. On average, a judge presides over 15.4 cases.

III. Identifying judicial assistants

Idem to judges, the published verdicts do not have a formal link between verdict and judicial assistant. However, unlike with judges, there is no public register of judicial assistants we can use to perform dictionary matching. I used a machine learning model trained on Dutch news data from open source machine learning library ‘spaCy’ to recognise the names of judicial assistants (spaCy, 2021). I retrained the model on 100 cases where I manually identified the names of judicial assistants. The model tried to find the name of the assistant after the judges were identified; this means that the model could not incorrectly label a judge as an assistant.

This is — relatively speaking — the weakest part of the data collection process: while the names of judges can be extracted quite easily from verdicts because of the publicly available register, recognising the names of judicial assistants is quite prone to errors. To ensure this method works, I did a random manual check on 150 cases that were tagged by the machine learning model to ensure the method worked. I found that the

16 A list of judges was compiled on February 21, which is used throughout this research paper.

17 Eight judges were removed from the dataset: A. de Boer, J.B. Smits, L. Stevens and S.M. de Bruijn.

18 Each case in the Netherlands has 1, 3 or 5 judges. There are no cases with an even number of judges. Cases in which more than 5 names were recognized generally occurred in three different contexts: (1) a conclusion from the Advocate General contained names from judges in lower cases, (2) cases where the integrity of the judge was challenged (‘*wraking*’), and (3) cases where a judicial assistant had the same name of a person that was on the central list of judges (which could be a coincidence or a judicial assistant becoming a judge).

untrained spaCy model was accurate in 93% of the verdicts. The retrained model had an accuracy score of 99%. If no or more than one judicial assistant was recognised, the case was discarded.

There is a final edge case that needs to be considered. Sometimes, names of judicial assistants and judges are identical. This could happen in the case where judge in education functions a judicial assistant, a judicial assistant turned judge in the same year or simply by sheer coincidence. Cases where this happened were dropped from the dataset.[19] Sometimes, assistants working in different courts share the same name; these were also dropped from the dataset.[20] I did a random manual check on 5% on the final dataset to confirm the accuracy of the method works. This had as result that in 99% of all verdicts the algorithm correctly identified the judicial assistant who co-signed the verdict. The dataset contains 519 unique judicial assistants. The assistant with the most cases was P.W. Hogenbirk (64 cases). Various assistants co-signed only one case. On average, an assistant co-signed 9.6 cases.

IV. Calculating the experience of judges and judicial assistants

A factor that could determine the extent to which an assistant can exert influence is the experience of the judge and judicial assistant. I added the experience of judges to the dataset by looking at the professional working history data from the public register of the judges. I used the date of the first job as a working judge for this. This is a very accurate method to determine the experience of judges, because the public register is checked by the Netherlands Council of the Judiciary. For cases with judge panels, I used the experience of the presiding judge. The experience is measured in days.

Unlike the public register for judges, there is no public register of judicial assistants that contains their professional experience. Instead, I took the first occurrence of the judicial assistant in any public verdict as the starting point of their professional experience. This method has its downsides (i.e. an assistant could have had years of working experience on cases that were not published), however, I assume that this inaccuracy evens out over judicial assistants in a large dataset. The experience of judge and assistant is calculated on a per-case basis by subtracting the starting date of their professional career from the date on which the case was issued. For many assistants, the dataset contained their first published verdict. Hence the experience of some assistants is zero days. This explains the higher kurtosis for judicial assistants (see table 3.IV.1).

Table 3.IV.1. Descriptive statistics of experience of presiding judges and assistants in days

	Mean	Std. deviation	Skewness	Kurtosis
Presiding judges	6461	3436	.25	-.79
Judicial assistants	3328	2513	.27	-1.30

Experience is in days.

19 This was the case for 21 judges/assistants: A.R. Vlierhuis, B. van Dokkum, C.E.C.M. van Roosmalen, C.G.M. van Ede, C.S. de Waal, D. de Vries, I.C. Hof, I.S. Ouwehand, J. de Graaf, J. de Vries, J.M.M. Bancken, L.N. Foppen, M. Duifhuizen, M.B. van Zantvoort, M.B.L. van der Weele, M.G. Ligthart, M.M. van Driel, P.M. Beishuizen, R. Grimbergen, R.H.L. Dallinga, V. van Dorst.

20 This was the case for 6 assistants: A. Jansen, A.J. Jansen, J. de Graaf, J. de Vries, M. Bos, M. de Graaf. These people were identified because they were mentioned in verdicts across a large amount of institutions either indicating they used to be lawyers or that multiple people share the same name.

If we look at experience per institution, we notice that the experience for the *College van beroep voor het Bedrijfsleven* (CBB) and *Centrale Raad van Beroep* (CRVB) are relatively low, while the experience of judges is relatively high; no literature was found that explains this difference.

Table 3.V.2. Average experience of judges and assistants per institution in days (N = 4961)

Institution	Presiding judge	Judicial assistant
CBB (*College van Beroep voor het Bedrijfsleven*)	7944	1305
CRVB (*Centrale Raad van Beroep*)	8985	458
GHARL (*Gerechtshof Arnhem-Leeuwarden*)	6922	4502
RVS (*Raad van State*)	6708	4486
RBAMS (*Rechtbank Amsterdam*)	5495	1757
RBDHA (*Rechtbank Den Haag*)	6042	2781
RBGEL (*Rechtbank Gelderland*)	6655	2907
RBLIM (*Rechtbank Limburg*)	6171	5083
RBMNE (*Rechtbank Midden-Nederland*)	4485	1315
RBNHO (*Rechtbank Noord-Holland*)	5618	3483
RBNNE (*Rechtbank Noord-Nederland*)	7266	4487
RBOBR (*Rechtbank Oost-Brabant*)	4981	4106
RBOVE (*Rechtbank Overijssel*)	7080	4703
RBROT (*Rechtbank Rotterdam*)	6008	4202
RBZWB (*Rechtbank Zeeland-West-Brabant*)	6544	3974
Total average	**6461**	**3328**

V. Single-judge or panel case

To determine whether a case was adjudicated by a single judge or a panel, I counted the number of judges in each verdict. If a verdict contained one judge, it was coded as a single-judge case. If a verdict contained more judges, regardless of whether it were 3 or 5 judges, it was coded as a panel case.

Table 3.V.1. Descriptive statistics of single-judge vs. panel case (N = 4961)

	Frequency	Percent
Single-judge	3909	78.8%
Panel	1052	21.2%

VI. Adding verdict length and number of references to (case) law

For the purpose of this paper, I looked at how often the verdict referenced other verdicts or a law. The number of references to laws was directly taken for each case from the Linked Data portal of the Dutch

government.[21] The references to previous ECLI cases were measured using pattern matching.[22] Additionally, verdict length was measured by counting the number of unique characters in each verdict.

Table 3.VI.1. Descriptive statistics of references and verdict length (N = 4961)

	Mean	Std. deviation	Skewness	Kurtosis
ECLI references	1.95	2.74	2.94	14.38
Law references	3.45	3.49	1.52	4.34
Verdict length (in characters)	14065	11443	4.04	30.57

VII. Outcome of the case

The outcome of a verdict is coded binary: a plaintiff can be found right or not be found right. Outcomes of a case are not always this binary: in Dutch administrative law a case can be inadmissible or the judge thinks they cannot come to a judgement on the case. For this, I used the coding scheme in table (3.VII.1). Cases with other outcomes or without merit were discarded. These cases included judgements where the court asked the CJEU to answer questions, judgements in which the judge referred the case to a different judge, to a panel or another institution, verdicts that challenged the judge(s) (*wraking*) and verdicts that rectified a previous verdict (often seen at the *College van Beroep voor het Bedrijfsleven*).

If the outcome was not clear, I followed the court's decision on who should be paying the litigation costs for the trial. If the plaintiff was required to pay their own costs, the case was labelled as unfounded. If the defendant was ordered to do so, the case was labelled as founded. This was only done in the cases where an initial outcome was not clear from the decision of the case.

Table 3.VII.1. Coding scheme outcome of cases (N = 4961)

Outcome	Coded to	N	%
Founded (plaintiff is right, *gegrond*)	Founded	1471	29.7%
Unfounded (plaintiff is wrong, *ongegrond*)	Unfounded	3172	63.8%
Unauthorized (court is allowed to reach verdict, *onbevoegd*)	Unfounded	33	0.07%
Inadmissible (procedural requirements are not met, *niet ontvankelijk*)	Unfounded	285	5.8%

Total founded = 1471, 29.7%. Total unfounded = 3490, 70.3%.

21 For example, for ECLI:NL:CBB:2020:872 the total number of references to law is 7: https://linkeddata.overheid.nl/front/portal/spiegel-lijstweergave?id=http%3A%2F%2Flinkeddata.overheid.nl%2Fterms%2Fjurisprudentie%2Fid%2FECLI%3ANL%3ACBB%3A2020%3A872

22 Based on EU ECLI guidelines; RegEx pattern: `ECLI:[A-Z]{2}:.{1,7}:\d{4}:[a-zA-Z\d\.]{1,25}`

VIII. Coding institutions

The institution the case was handled by can also be of influence. This can especially be seen in the context of Courts of Appeal, that generally handles more complex cases. There are many institutions that handle administrative law cases; dummy-coding each institution causes a large number of variables that are both impractical to interpret in the context of this research and can cause problems with the representativeness of the dataset. Hence, the institution was coded to a variable with two options: the case was either handled by a district court or by a high court.

Table 3.VIII.1. Coding scheme outcome of institutions (N = 4961)

Institution	Coded to	N	%
CBB (*College van Beroep voor het Bedrijfsleven*)	High court	683	13.8%
CRVB (*Centrale Raad van Beroep*)	High court	27	0.5%
GHARL (*Gerechtshof Arnhem-Leeuwarden*)	High court	25	0.5%
RVS (*Raad van State*)	High court	1552	31.3%
RBAMS (*Rechtbank Amsterdam*)	District court	357	7.2%
RBDHA (*Rechtbank Den Haag*)	District court	519	10.4%
RBGEL (*Rechtbank Gelderland*)	District court	77	1.6%
RBLIM (*Rechtbank Limburg*)	District court	225	4.5%
RBMNE (*Rechtbank Midden-Nederland*)	District court	304	6.1%
RBNHO (*Rechtbank Noord-Holland*)	District court	340	6.8%
RBNNE (*Rechtbank Noord-Nederland*)	District court	83	1.7%
RBOBR (*Rechtbank Oost-Brabant*)	District court	23	0.5%
RBOVE (*Rechtbank Overijssel*)	District court	48	1.0%
RBROT (*Rechtbank Rotterdam*)	District court	177	3.6%
RBZWB (*Rechtbank Zeeland-West-Brabant*)	District court	521	10.5%

Total district court = 2674, 53.9%. Total high court = 2287, 46.1%.

C. Statistical methods

I. Linear regressions on verdict length and references

To see whether verdict length is affected by the experience of assistants, I decided to regress (ordinary least squares) one against the other. I control for a number of characteristics of a verdict of which literature suggests they could affect the length of a verdict, or from which we can deduce they could affect length: the complexity of a case (denoted by frequency of references to law and case law, whether the case was presided over by a single judge or a panel, experience of the presiding judge, and procedure level), whether the decision was founded or unfounded (where unfounded cases are generally shorter) and institution level. The same method is used to explore the relation between the number of references to law and case law, and the experience of judicial assistants. The same controls are used as well, with the addition of verdict length. These regressions are done on the full dataset (N = 4961).

Regarding the assumptions for linear regressions, most assumptions are met. There is no collinearity amongst variables; all VIF scores were below 2. The variance of residuals is constant, and the values of residuals were independent (Durbin-Watson value was 1.12). However, there was no normality in the dataset (PP plot was skewed, Shapiro-Wilks test was not significant, $p < .05$), but the data does look normally distributed. No transformations were able to fix this.

The formal hypotheses for the length of the verdict are:

> H_0: The experience of a judicial assistant has no effect on the length of a verdict.
> H_a: The experience of a judicial assistant has an effect on the length of a verdict.

The formal hypotheses for the frequency of references to law and case law are:

> H_0: The experience of a judicial assistant has no effect on the frequency of references to law and case law in a verdict.
> H_a: The experience of a judicial assistant has an effect on the frequency of references to law and case law in a verdict.

II. Text analysis

It is important to note that textual analyses does not provide a direct, causal relationship between the involvement of judicial assistants in authoring draft judgements and them actually exerting influence over the outcome of a case. Holvast (2017) observed in her interviews that more experienced assistants develop a distinct writing style. Such a writing style is a proxy for the influence an assistant has over the language of the verdict. In the Dutch context, assistants often use default formulations for verdicts. This is especially the case in more routine cases.

To determine whether more experienced assistants develop their own, unique writing style, we can measure the uniqueness of a verdict compared to a corpus of other verdicts. The hypothesis is that texts that are more unique ought to be written by more experienced assistants. Uniqueness of a text is the inverse of similarity; texts that are very similar are not unique. Determining text similarity is easier to do than determining uniqueness.

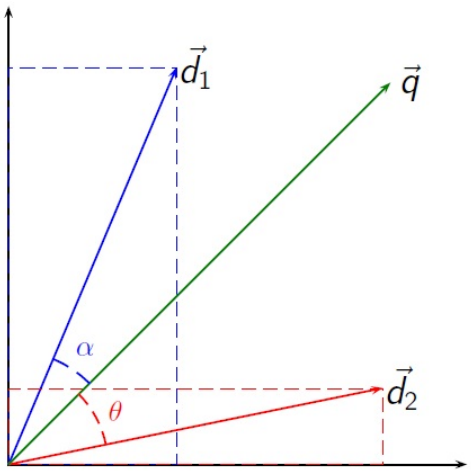

Figure 1: Simple, visual representation of Vector Space Model, where vector q is the verdict that is checked and vector d1/d2 could be another document or a corpus. *Author: Riclas, CC BY 3.0*

Wang and Dong (2020) did an extensive survey of available methods to measure text similarity. We are not interested in methods that can compare two texts; rather, we are interested in doing one-to-many comparisons. This requires a corpus-based method. While Wang and Dong discuss many possible methods, I decided to go for a Bag-of-Words style method based on a Vector Space Model. A 'vector' is calculated for the corpus of verdicts and each verdict. A vector is a unique lexical fingerprint for that case. The difference between each vector and the corpus can be calculated by the cosine similarity measure (denoted by α or θ in figure 1).

Other legal research also utilises Bag-of-Words style analyses. For example, Wahlbeck, Spriggs and Sigelman (2002) use, amongst others, two indicators to find stylistic differences between texts: token ratio

(number of different words in an opinion as percentage of the total number of words) and once-words (relative frequency of words that appear exactly once in an opinion). Other indicators were text length, average word length, average sentence length, footnote frequency and footnote length. Rosenthal and Yoon (2010) use the frequency of a set of 63 function words (words like a, all, also, an, and, any etc.) to measure writing style. Nowadays, machine learning models based on vector space models are much more powerful, less arbitrary and easier to use.

Instead of building my own implementation of this algorithm, I decided to use an implementation by Gensim, a Python package, that can calculate vectors for one and many documents, and immediately calculate the cosine similarity between each vector.[23] The result of the cosine similarity measure is a similarity score between 0 and 1 for each verdict. This is a standardised score. This score is then regressed on judicial assistants. Control variables include the length of the case, frequency of references to law and case law, whether the case was presided over by a single judge or a panel, experience of the presiding judge, whether the decision was founded or unfounded, procedure level and institution level. The full dataset and scripts to calculate similarity scores can be found on Github.[24]

I calculated this score with one restriction: cases that are written by the same judicial assistant are compared to each other. This is done for two reasons: judicial assistants often work on cases that are highly similar; for example in cases where multiple parties appealed against the same decision and the same verdict was issued to each party (with the exception of some metadata).[25] Secondly, judicial assistants can copy formulations they used in previous, similar cases. While this would be an interesting topic of research, for the purpose of this paper it is counterproductive. We are not interested in seeing how often judicial assistants copy their own formulations; we want to see how often they copy formulations by others. This restriction also prevented problems that would occur when a verdict would be compared to itself.

When checking whether this algorithm worked, I found a few interesting patterns. Cases are quite similar on average (M =.75, SD = .08); this is as expected because the texts are from the same domain and roughly follow the same structure. To confirm this, I decided to compare 10 tweets to the corpus (average highest similarity score of .31) and 10 newspaper articles related to sports from NOS.nl (average highest similarity score of .52).

Kurtosis (-.49) and Skewness (-.07) were relatively small in the dataset and the similarity scores look quite normally distributed; the Shapiro-Wilks test failed though ($p < .05$). I also explored the most similar and least similar cases for each verdict. The verdicts that were both similar both dealt with returning foreign fighters from the Islamic State (ECLI:NL:RBDHA:2020:5779 and ECLI:NL:RBDHA:2020:4397); a topic with very specific language and phrasings, and with the same panel of judges. The least similar verdicts were both from the highest administrative court (*Raad van State*) but on a different topic: ECLI:NL:RVS:2020:2930 deals with a school building while ECLI:NL:RVS:2020:2606 deals with mining operations and damages in the Province of Limburg.

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23 Gensim is an open source package, actively maintained by over 350 people and has over 12.000 stars on Github. This indicates that it is a trustworthy package to use.

24 https://github.com/Jonakemon/thesis-public

25 For example, see ECLI:NL:CBB:2020:715 and ECLI:NL:CBB:2020:716, or ECLI:NL:RBMNE:2020:3095 and ECLI:NL:RBMNE:2020:3099.

Regarding the assumptions for linear regressions, most assumptions are met. There is no collinearity amongst variables; all VIF scores were below 2. The variance of residuals is constant, and the values of residuals were independent (Durbin-Watson value was 1.97). However, there was no normality in the dataset (PP plot was skewed, Shapiro-Wilks test was not significant, $p < .05$), but the data does look normally distributed. No transformations were able to fix this.

The formal hypotheses for the similarity of verdicts are:

> H_0: The experience of a judicial assistant has no effect on the similarity of a verdict compared to all other verdicts.
> H_a: The experience of a judicial assistant has an effect on the similarity of a verdict compared to all other verdicts.

4. Analysis & results

A. Length of verdicts and experience of judicial assistants

Table 4.A.1. shows the results of the linear regression on the length of verdicts. Each variable significantly explains the length of a verdict. Three interesting effects can be observed. Firstly, the more experienced a judicial assistant is, the longer the verdicts they work on are. For each 100 days of experience, their verdicts become approximately 65 words longer. Secondly, the more references to case law and law references are included in a verdict, the longer a verdict becomes. Thirdly, cases handled by a single judge are significantly shorter (approximately 7489 words) than cases handled by panels. Also interesting to note is that verdicts which are unfounded are shorter by around 1818 words. The variables explained 30% of variance (R^2 = .41, F(8,4952) = 429.20, p < .001).

The effect of judges on length of verdicts is significant, but almost nothing (9 words per 100 days of experience).Table 4.A.1. shows the results of the linear regression on the length of verdicts. Each variable significantly explains the length of a verdict.

Three interesting effects can be observed. Firstly, the more experienced a judicial assistant is, the longer the verdicts they work on are. For each 100 days of experience, their verdicts become approximately 65 words longer. Secondly, the more references to case law and law references are included in a verdict, the longer a verdict becomes. Thirdly, cases handled by a single judge are significantly shorter (approximately 7489 words) than cases handled by panels. Also interesting to note is that verdicts which are unfounded are shorter by around 1818 words. The variables explained 30% of variance (R^2 = .41, F(8,4952) = 429.20, p < .001). The effect of judges on length of verdicts is significant, but almost nothing (9 words per 100 days of experience).

Table 4.A.1. Linear regression analysis of the length of 4961 verdicts

Parameter	B	S.E.	β
(Constant)	13570.52	562.12	
Experience of judicial assistant (days)	.65	.05	.14 ***
Experience of presiding judge (days)	-.09	.04	-.03 *
Single judge case (opposite: panel)	-7489.29	329.29	-.27 ***
District court (opposite: high court)	-866.97	323.03	-.04 **
Case in first instance (opposite: appeal)	958.99	377.28	.04 *
Decision unfounded (opposite: founded)	-1599.07	277.22	-.06 ***
Number of references to case law	1666.82	48.47	.40 ***
Number of references to law	695.98	37.42	.21 ***

R^2 = .41. For effect sizes, look at the standardized coefficient β. Experience of judges and assistants is days. Single judge case, district court, case in first instance, decision unfounded are dummy coded variables (see section 3.B.). References to (case) law is ratio.
* p < 0.05, ** p < 0.01, *** p < 0.001

The main conclusion we can draw from table 4.A.1. is that the longer a verdict is, the more experienced the assistant working on the verdict appears to be. Our null hypothesis is rejected. The relationship between experience and verdict length is positive: more experienced assistants write longer verdicts. For the purpose of this paper, these findings do hint at judicial assistants being able to influence the length of a verdict. Compared to the research of Pauwelyn and Pelc (2019), who found that more inexperienced assistants would write longer rulings at the WTO, the direction of the effect differs.

There are two possible explanations for this difference. Firstly, it could be the case that more experienced judicial assistants work on more complex verdicts. More complex verdicts could require more complex judgements to justify a certain decision. The controls for the complexity of a case (single-judge or panel, institution, references to law and case law, et cetera) could be insufficient. A stronger control to measure the complexity of a verdict, or an experimental setting in which assistants with different experiences write a verdict for the same case, could account for this. Secondly, more experienced assistants often have a distinct writing style (see section 4.C.), while assistants with less experience often conform to standard writing styles. It could be the case that default formulations for verdicts that lesser experienced assistants use are phrased more concisely. This would affect the length of the judgement. Further research should indicate whether this is a possibility.

B. References in verdicts and experience of judicial assistants

The regression on the total number of references (case law references + references to law) in verdicts and the experience of judicial assistants yielded some interesting results. While the experience of assistants is significant, the effect size is nearly nothing. This is the same for almost every variable, except for verdict length. It is quite intuitive to understand that longer verdicts contain more references. It is surprising to see that the effect of experience of judicial assistants has almost no effect. In total, the variables explained 29% of variance (R^2 = .29, F(7,4953) = 288.88, p < .001).

Table 4.B.1. Linear regression analysis of number of references to (case) law in 4961 verdicts

Parameter	B	S.E.	β
Constant	1.77	.28	
Experience of judicial assistant (days)	.00	.00	-.01 ***
Experience of presiding judge (days)	.00	.00	.01
Single judge case (opposite: panel)	.83	.17	.07 ***
Verdict length (in characters)	.00	.00	.55 ***
District court (opposite: high court)	-.70	.15	-.07 ***
Case in first instance (opposite: appeal)	1.01	.18	.08 ***
Decision unfounded (opposite: founded)	-.33	.13	-.03 *

R^2 = .29. For effect sizes, look at the standardized coefficient β. Experience of judges and assistants is days. Single judge case, district court, case in first instance, decision unfounded are dummy coded variables (see section 3.B.). References to (case) law is ratio.
* p < 0.05, ** p < 0.01, *** p < 0.001

The experience of the presiding judge is not statistically significant. There are very significant results for district courts and the decision, and these effects are somewhat intuitive. District courts appear to use less

references, while higher courts use more. This could be explained by the complexity of cases that appear before higher courts, which might require more references to justify a decision. Cases that are unfounded require less references, which corresponds to the findings in the previous regression which indicated that cases that are unfounded are also shorter. When regressing on only case law references, the results were roughly similar (although with different effect sizes). For the question in this paper, these results do not indicate that judicial assistants significantly affect the usage of references in verdicts.

C. Regression on text similarity and experience of judicial assistants

The final regression was done on the similarity of verdicts and the experience of assistants. Every variable (with different p-values) was significant. The experience of judicial assistants is negatively correlated with text similarity. This is in accordance with existing literature and our hypothesis: the more experienced a judicial assistant is, the less similar (= more unique) verdicts become. The variables were able to explain 16% of variance (R^2 = .18, F(9,4957) = 117.42, p < .001).

Looking at the results table, we also see that more references to case law increases the similarity between verdicts — quite logical considering verdicts often refer to each other as sources of argumentation. Similarly, verdicts in first instance are more similar to each other since they — most likely — deal with more routine subjects.

Table 4.C.1. Linear regression analysis on the similarity of 4961 verdicts

Parameter	B	S.E.	β
Constant	.73	.00	
Experience of judicial assistant (days)	.00	.00	-.17 ***
Experience of presiding judge (days)	.00	.00	.03 *
Single judge case (opposite: panel)	.03	.00	.15 ***
Verdict length (in characters)	.00	.00	-.17 ***
District court (opposite: high court)	-.05	.00	-.30 ***
Case in first instance (opposite: appeal)	.06	.00	.29 ***
Decision unfounded (opposite: founded)	.01	.00	.04 **
Number of references to case law	.00	.00	.10 ***
Number of references to law	.00	.00	.04 *

R^2 = .16. The unstandardised coefficients (B) are not interpretable because the similarity score is a value between 0 and 1; instead look at the standardised coefficients (β). Experience of judges and assistants is days. Single judge case, district court, case in first instance, decision unfounded are dummy coded variables (see section 3.B.). References to (case) law is ratio.

* p < 0.05, ** p < 0.01, *** p < 0.001

5. Discussion & options for further research

A. Main findings

In this paper, I contributes two main insights. In chapter 2, I created a schematic overview of the steps a case takes throughout a court. A case takes many steps from its submission to a verdict being issued, but only a few have been researched with quantitative or experimental methods. During each step, a judicial assistant has the potential to exert influence on the judicial decision-making process. A full overview of each step and methods through which influence could be exerted can be found in table 2.B.II.

Chapter 2 also contains an extensive review of (recent) literature on the role of judicial assistants in the Netherlands, United States, Europe and international contexts. On top of this, it contains a review of various opinions in academia on the advantages and concerns of the rising influence of judicial assistants. Finally, the chapter reviews which factors determine the extent of the influence could have. The chapter also rised three questions that could be answered through quantitative research.

1. How is the experience of judicial assistants related to the length of verdicts?
2. How is the experience of judicial assistants related to the amount of references to (case) law in a verdict?
3. How is the experience of judicial assistants related to the originality of the verdicts?

I used 4961 verdicts from Dutch administrative law to answer these questions (section 3.A.), while controlling for various other factors that could affect the length, number of references in, and originality of verdicts (section 3.B.). To determine the ‘originality of verdicts’, I used its antonym: the text verdicts share. I used a state of the art bag-of-words text analysis model to do so, a method not often used in legal research (section 3.C.II.).

The conclusions are summarised in table 5.A.1., which contains a comparison of the standardized coefficients from each regression. This table should be interpreted carefully; we are not able to draw any conclusions on the effect size of various variables on the dependent variable. We should only look at the direction of the effect and the size of the effect for that regression. With those concerns in mind, we can see that the experience of judicial assistants is positively related to the length of the verdict, slightly negatively related to the number of references to (case) law in verdicts, and very negatively related to the similarity of verdicts. Put differently, more experienced assistants write longer verdicts, that are more original, and contain slightly less references. The experience of the presiding judge only plays a small role on these verdict characteristics, which could hint at assistants exerting influence.

The findings on the originality of verdicts correspond with the findings of Holvast (2017), who noticed this while doing ethnographic research. The length of verdicts is not according to the hypothesised findings: Pauwelyn and Pelc (2019) found at the level of the WTO that inexperienced assistants would write longer verdicts. The difference in institution (Dutch judiciary vs. WTO) could explain this discrepancy, but more research is required to definitively conclude so. The effect of experience on references to (case) law was significant, but very small. There is only sporadic literature on the usage of references and the experience of assistants; this paper tries to make a contribution to that.

Table 5.A.1. Standardized coefficients of 3 regression analyses on the experience of judicial assistants in 4961 verdicts

Parameter	β verdict length	β references	β similarity
Experience of judicial assistant (days)	.14 ***	-.01 ***	-.17 ***
Experience of presiding judge (days)	-.03 *	.01	.03 *
Single judge case (opposite: panel)	-.27 ***	.07 ***	.15 ***
Verdict length (in characters)		.55 ***	-.17 ***
District court (opposite: high court)	-.04 **	-.07 ***	-.30 ***
Case in first instance (opposite: appeal)	.04 *	.08 ***	.29 ***
Decision unfounded (opposite: founded)	-.06 ***	-.03 *	.04 **
Number of references to case law	.40 ***		.10 ***
Number of references to law	.21 ***		.04 *

β are standardized regression coefficients that allow for comparisons across regressions. Their size indicates the relative effect on the dependent variable.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

B. Implications of this research and options for future research

This research contributes to the field of research on the influence of judicial assistants. While there is literature on the role of assistants, most of the literature is not quantitative or experimental of nature. This paper contributes to this field in five ways.

Firstly, this paper contributes to the field by giving an overview of the steps a case takes throughout the judiciary, and accompanying research on the role of assistants during that step (table 2.B.II.). This field of research is increasing in importance over the past years, as new research consistently shows the influence assistants have in the decision-making process. An analysis of existing research to determine which evidence is still missing helps to guide future research. For example:

- Can judicial assistants influence the decision-making process by providing specific input during sound boarding with judges or in deliberations?
- How do judicial assistants determine the time and attention the case receives from court (i.e. during hearing)? Which factors determine the time and attention?
- If the experiment proposed by Stoepker and Schulmer (2020) to give assistants a formal role in pre-trial investigations happens, do assistants make different decisions than judges? If so, what factors drive that decision?

Secondly, this research contributes three analyses, that all indicate the experience of assistants affects various characteristics of verdicts. Each analysis is another hint at the influence judicial assistants could have on the decision-making process. However, this paper does not present conclusive evidence. One recommendation for future research is to conduct an experiment where multiple assistants, with various backgrounds, write verdicts for the same case (facts, evidence and pleas). Analysing those verdicts with similar methods as in this research should provide more conclusive evidence on the effects of judicial assistants on verdict writing.

The third contribution is methodological of nature. This paper is an example of how state of the art text analysis methods can be incorporated in legal research to analyse verdicts. Methods like these can be used for a wide variety of analyses. For example, by creating a corpus based on all verdicts published by the Dutch judiciary, it could be studied whether verdict similarity has changed over the years. Since assistants have only started to author draft verdicts in the Netherlands in the past two decades, doing an analysis over time could lead to insights in verdict authoring between judges and assistants.

Fourthly, this paper used a method to automatically identify the judges who issued a verdict and the judicial assistant that co-signed a verdict (see section 3.B.II.). I did not find such a method to have been used in legal research before. This paper is an example how to effectively use such a methodology, preventing researchers to have to create large datasets by hand.

Finally, this paper shows the importance to think about the normative questions surrounding the involvement of judicial assistants. Currently, a thorough evaluation of these questions (for the Dutch context) is still lacking. Assuming their ability to exert influence on the decision-making process, should we place more safeguards surrounding the position of assistants, such as background checks, public registers and disclosure of side jobs? Or should we limit their ability to exert influence by reducing their tasks and responsibilities or by better equipping judges against this influence?

Other options for future research include repeating this research across different years and legal areas. This would increase the generalisability of the conclusions of this research. This research could be combined with a survey amongst judges and assistants to collect information on their opinion on the principal-agent theory factors (see Mascini and Holvast, 2020). Connecting that information to a dataset like the one used in this paper would allow for more control variables. That should increase the accuracy with which the effect of the experience of judicial assistants could be measured.

A final suggestion for future research is comparing the influence of judicial assistants across jurisdictions. A larger research project is required for this, since little quantitative research on the influence of judicial assistants exists outside the United States, and the existing research employs different methodologies. Such an encompassing research project would allow us to look at the role of assistants in various jurisdictions and which factors (such as experience, judicial culture, institution et cetera) contribute most to assistants effectively exerting influence.

C. Weaknesses of this research

There are a few important methodological weaknesses to this paper that require attention. The experience of judicial assistants was measured by the first occurrence as an assistant in a published case. The national register of verdicts was used for this. This is only a proxy for their experience; I did not take prior legal experience into account (neither did I do so with judges). It is an indication, but not an absolute measure for their experience.

Self-reported experience might be more accurate than the method used to calculate experience in this research, although there is no literature that specifically deals with this question. Additionally, collecting the experience of the hundreds of assistants is a time consuming and expensive process that relies on the willingness of assistants to cooperate.

In this research, only contextual variables of cases were taken into consideration as controls. Mascini and Holvast (2020, p. 15) showed that principal-agent theory variables significantly explain the influence assistants could have on judges. These variables were not taken into consideration in this paper. Assumption wise, the important variables in the dataset were not normally distributed.

The dataset constructed for this paper is based on verdicts that were published by the Dutch judiciary. Only a very small number of verdicts (0.47% in 2019) are published. Only a specific selection of cases is made public, based on criteria of the Netherlands Council of the Judiciary. This hurts the generalisability of the findings of this paper. The reasons for this weakness are further described in section D.

Finally, the methods used to collect data were largely automated processes based on new technologies that have not been used before in the context of legal research. 5% of cases were manually checked and showed that the automated process yielded results that were sufficiently accurate. A researcher with more time, budget or help could have decided to collect the entire dataset by hand.

D. A note on the accessibility of verdicts within the Dutch judiciary

A transparent judiciary is essential for the rule of law. In the Netherlands, this is codified in Article 121 of the constitution. However, while all verdicts are 'made public' (i.e. by oral presentation), not all verdicts are publicly available. This confusing, but important distinction makes this research difficult. Article 121 only dictates that the verdict must be read out in public, not that the integral text of the verdict should be made public.

When I set out to write this paper, I wanted to analyse *all* verdicts published by courts. Being able to do an analysis on all verdicts would make any findings quite generalisable to future cases. Because I do not know exactly which verdicts are not published (the guidelines that determine which verdict is or is not published leave a lot of room for interpretation for courts), there is no way to correct or control for having an incomplete research population. Put differently: when you do not know what you do not know, you cannot know whether what you know is enough to do an analysis.

This problem is not new. For a long time, academics, researchers and legal professionals have called on the Dutch judiciary to publish more verdicts. More recently, Marseille and Wever (2019) wrote about the effects this had on their empirical research. While the number of cases published has increased over the years, there is no realistic outlook on when the judiciary will publish the outcome of all cases. The Netherlands scores only 10 out of 24 points on the EU Justice Scoreboard for the accessibility of judgements metric, lacking in departments such as the number of published verdicts, the machine readability of data and the quality of available metadata (European Commission, 2020, figure 8).

While I was writing this paper, the Netherlands Council of the Judiciary announced their ambition to publish 75% of all cases (NRC, 2021). That is promising development from which future research will definitely benefit. I cannot wait until that moment.

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