



## Christopher Lively is the recipient of the 2019 CPA Student Research and Knowledge Dissemination Grant

### Animated Interrogation Rights: Can a Multimedia Presentation Improve Youths' Comprehension of their Interrogation Rights?

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Youths' developmental immaturity, susceptibility to comply with an authority figure, and lack of cognitive ability to navigate a complex interrogation puts them at a disadvantage when subjected to an interrogation (Eastwood et al., 2014; Owen-Kostelnik et al., 2006). The challenges of an interrogation can become compounded further if youth are not armed with a full understanding of their legal protections during this consequential interaction. Unfortunately, research shows that it is rare for a youth (12-17 years of age) to understand their interrogation rights fully after being presented these rights at the outset of a police interrogation (Freedman et al., 2014; Grisso, 1981). The lack of understanding appears to be due, in part, to the fact that these rights are written using legalese (e.g., "duty counsel"), requires the youth to have a high reading level ability, and exceeds the suggested amount of information that can be processed in working memory (Eastwood et al., 2015; Rogers et al., 2007). Further concerns about the lack of protections for youth arise when one considers recent research showing that there is no standardization in the way that police deliver youth interrogation rights – that is, there is inconsistency in how interrogation rights are

delivered to youth and how well they are explained to them in actual interrogations (McCardle et al., 2020). Taken together, these findings suggest that a new delivery approach may be warranted to improve upon the outcomes of current practices. When young people struggle to understand their interrogation rights, a host of negative outcomes can occur. First, youth may make uninformed decisions (e.g., waive rights without realizing the repercussions); this creates a trickle-down effect whereby the youth is exposed to coercive police tactics, may end up providing self-incriminating evidence, and may not have their lack of comprehension detected (if at all) until reaching court. Second, case law (e.g., *R. v. L.T.H.*, 2008) states that police need to demonstrate that the youth understood their interrogation rights. In other words, if understanding by a youth is not verified, then any statement by the youth can be deemed inadmissible during court. Third, if an innocent youth is jailed, then the real offender is still at large in the community. Conversely, if a guilty youth provides self-incriminating evidence, but a lawyer is able to demonstrate that the youth did not comprehend their interrogation rights, then the guilty youth could be re-

leased back into the community. Thus, the need to ensure youth have their interrogation rights delivered to them appropriately and in understandable terms is clear.

Fortunately, research has demonstrated that comprehensibility of youth interrogation rights can be increased with modifications to the way these rights are delivered. For example, Eastwood and colleagues (2016) were able to increase comprehension levels in youth from 40% (e.g., Eastwood et al., 2015; Freedman et al., 2014) to 80% comprehension by using short sentences, chunking sections, using fewer words overall, simplifying language, explaining each key right multiple times, ensuring an overall low reading, and listing the number of rights explicitly to aid recall (see Eastwood & Snook, 2012). However, 80% is not 100% comprehension, and research from the cognitive psychology and multimedia learning literatures suggests that comprehension can be increased further.

The *multimedia effect* is one of the most established and supported principles of learning (Halpern et al., 2007; Mayer, 2009; Pashler et al., 2007). Broadly, it states that individuals learn better from materials using words and graphics rather than words alone. Decades of studies on the multimedia effect have come to the same robust conclusions: people who receive a multimedia lesson consisting of words and pictures perform better on subsequent knowledge transfer tests than those who receive the same information in words alone (e.g., Mayer, 1989; Mayer & Anderson, 1991, 1992; Mayer et al., 1996; Moreno & Mayer, 1999, 2002). Research has also suggested that using words and graphics is particularly important for teaching concepts to learners who have low knowledge of the domain rather than learners who have high knowledge of the domain (Kalyuga et al., 1998, 2000). Such findings suggest that the multimedia effect may be helpful for a naïve youth (i.e., person with low knowledge of interrogation rights) during an interview setting with a police officer (i.e., person with high knowledge of interrogation rights).

The multimedia effect is based on cognitive load theory, which concerns working and long-term memory. When an individual is attempting to understand information or complete a task, they can process only two or three items of information at once. An individual's total cognitive load is comprised of all the information their working memory is handling at one time. Cognitive load can be broken down into three subtypes: intrinsic, extraneous, and germane cognitive

load. Intrinsic cognitive load is the mental effort expended due to the complexity of the material and the method in which it is presented; the resources it takes to understand the material. Extraneous cognitive load is any mental energy distracted from processing the information or task at hand, such as environmental distractions or poorly designed instructions. Germane cognitive load is the cognitive resources left to convert the information into learned material (see Sweller, 2010). That is, the information is taken from working memory and stored into long-term memory (i.e., learning). To maximize learning, materials presenting a novel concept to learners should strive to decrease intrinsic and extraneous cognitive load and increase resources available for germane cognitive load. Said differently, the information should be simplified as much as possible, and external distractions should be minimized. It is important that content creators take these limitations into consideration when creating learning materials (Kirschner, 2002; see Mayer, 2005).

Given the multimedia effect's apparent applicability to novices, it seems probable that presenting interrogation rights to youth in multimedia format could lead to greater understanding than the standard approach (i.e., an officer reading the youth their interrogation rights verbatim). With the aforesaid psychological learning theory and reported findings from the published literature on youth interrogation rights comprehension in mind, the goal of this research is to increase the protective value of interrogation rights for youth by improving their understanding of these rights through a multimedia presentation. To achieve this, youth interrogation rights will be presented to participants in a multimedia presentation style and their understanding will be assessed through a follow-up comprehension test.

Specifically, Experiment 1 will test various conditions of the multimedia presentation on an adult convenience sample to ensure the manipulations work as intended (i.e., pilot test of content validity). Experiment 2 will replicate Experiment 1 with a sample of community youth to ensure that the multimedia presentation conditions are age appropriate (i.e., experimental test of content validity). Findings from these Experiments will determine which multimedia presentation condition yields maximum comprehension. Experiment 3 will compare this particular multimedia presentation condition to the standard interrogation rights delivery approach using a sample of young offenders to assess the effects on comprehensibility (i.e., experimental test of generalizability).



## References

To our knowledge, this work will be the first to examine a new multimedia-based method for presenting youth interrogation rights. It will also help ensure that all stakeholder parties are protected appropriately and will give rise to a standardized approach in how interrogation rights are presented to youth in Canada. We look forward to sharing our findings from this research program with the academic community, criminal justice practitioners and agencies, and youth rights organizations (e.g., the Center on Wrongful Convictions of Youth; see Northwestern University, 2020) to contribute toward policy reform in police interrogations of youths. This research is being supported by the Canadian Psychological Association's Grant for Student Research and Knowledge Dissemination awarded to the first author. We are grateful to the Canadian Psychological Association for supporting people-focused research aimed at enhancing the administration of justice. Together, through this work we can help ensure that citizens of all ages, culture, and backgrounds are safe, secure, and protected appropriately.

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### Acknowledgements

Support for the research reported in this paper was provided to the first author by the Canadian Psychological Association 2019 Student Research and Knowledge Dissemination Grant.

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