

K B Motshabi

Senior Lecturer,
Department of Public
Law, University of the Free
State
ORCID: <http://orcid.org/0000-0002-8310-7828>

C Vinti

Lecturer, Department of
Public Law, University of
the Free State
ORCID: <http://orcid.org/0000-0002-3823-2400>

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CHRONICLE

Observational critique of FIRAC as a tool for legal analysis¹

1. Introduction

The most basic legal analysis requires students to identify the relevant principle and apply it to a set of facts.² In simple terms, legal analysis entails effective and insightful reading and application of court decisions, legislation, academic writing, and transactional documents such as contracts. It is also the foundation for the process of learning legal writing.³ Legal analysis also requires that law students have a good command of the language of the discipline, mostly English in South Africa.⁴ Greenbaum submits that a poor command of the English language is fatal to students engaging with lecturers in a “critical or argumentative way”.⁵

To this end, the Faculty of Law, University of the Free State (UFS), mostly uses FIRAC in an effort to embed strong cognitive and critical thinking skills in its Bachelor of Laws (LLB) programme. FIRAC is an acronym for the famed – or perhaps notorious – “facts”, “issue”, “rule of law”, “application” and “conclusion” thinking formula. Over the past seven years, we have taught approximately 5,500 UFS law students on the introduction to legal science and legal writing courses. Our experience causes us to doubt the effectiveness of FIRAC to teach cognitive and critical thinking skills.

- 1 We are eternally grateful for the insight and wisdom of our colleagues – Professor Neels Swanepoel, Dr. Jo-Mari Visser and Mrs. Leani van Niekerk – and for that of the anonymous peer reviewers. Thanks is also due to our research assistant, Coreen Steenkamp, for able assistance. All errors are our own.
- 2 Felsenburg & Graham 2010:294.
- 3 Felsenburg & Graham 2010:260.
- 4 Swanepoel & Snyman-Van Deventer 2012:130. See Rideout & Ramsfield 1994:35, 47; Greenbaum 2012:113.
- 5 Greenbaum 2012:112.

Definitionally, “critical thinking” is the pursuit of cogent justifiable inferences.⁶ It includes analysis, inference, interpretation, explanation, synthesis, and self-regulation.⁷ “Cognitive skills”, on the other hand, constitute fundamental elements of thinking that include reading, writing, mathematical skills, focusing skills, information processing, organisation, memory recall, reasoning, analysis, synthesis, and three-dimensional visualisation.⁸ “Cognitive” endeavours employed in thinking fall into two categories. The first is “cognitive strategies”, consisting of problem-solving, decision-making, and conceptualisation.⁹ The second is “cognitive skills”, comprising the critical thinking required for the discernment of information.¹⁰ In this way, “critical thinking” is also a cognitive skill.¹¹ Thus, “cognitive development” invariably requires “critical thinking”. We assess the UFS experience of FIRAC within this conceptual matrix.

The use of FIRAC to inculcate critical thinking and cognitive skills is not a novelty and has, in fact, been the preferred instrument in world legal education. However, we fear that using FIRAC may adversely affect the analytical ability of UFS LLB students. This article aims to identify and assess, in three sections, the effects of FIRAC on legal analysis, particularly in light of our experience at the UFS. The first section outlines the genesis of FIRAC and IRAC (“issue”, “rule”, “application” and “conclusion”). It evaluates broadly and identifies six major concerns about these frameworks. The second section evaluates the repercussions of FIRAC for legal analysis in the UFS LLB. The third section offers a conclusion. This article is a purely theoretical inquiry and does not comprise a statistical trend study.

We regard IRAC and FIRAC as interchangeable. The minor operational differences are of degree and not kind. The common resemblance reflects a shared continuum and the nature and function of IRAC and FIRAC are fundamentally similar. Any singular allusions reflect the referred scholarship and belie this introductory view.

2. The IRAC and FIRAC method¹²

2.1 The essential features of IRAC and FIRAC

Apparently dominant in the United States of America, the universally acclaimed approach to teaching legal writing to first-year law students

6 Lombard 2008:1032.

7 Potgieter 2012:4; Grosser & Nel 2013:2; Jeevanantham 2005:20; Strauss 2016:261-271.

8 Selvaratnam 2011:231.

9 Selvaratnam 2011:231

10 Lombard & Grosser 2004:213.

11 Lombard & Grosser 2004:213.

12 We intentionally refer to IRAC and FIRAC more or less as alternates throughout.

appeared under the acronym, IRAC.¹³ Legal arguments framed in IRAC terms begin with the issue, proceed to relevant law, then the application, and conclusion.¹⁴ Seemingly the most prevalent South African variant of IRAC thinking, FIRAC, is the acronym for a five-step analytical process to learn any law.¹⁵ Each letter defines both the steps and order of the thinking process.¹⁶ This constitutes FIRAC, and by implication IRAC, as a “problem-solving tool”.¹⁷

One ostensible additional idea is to teach junior students the structure and organisation of court decisions. This guides students to identify relevant components with an informed and disciplined focus on extracting the gist of controlling legal principles. FIRAC, and by implication, IRAC, claims value for student understanding of techniques to formulate legal arguments and for providing students with some form of direction.¹⁸ IRAC is often a template for teaching legal analysis.¹⁹ Thus, many hope that FIRAC will lay the foundation not only for legal analysis and effective communication of ideas, but also for the development of critical thinking skills.²⁰ Consequently, some assert that FIRAC has some use in the writing of legal memoranda.²¹

IRAC and FIRAC serve not merely as tools for organising legal writing – law teachers likely intend IRAC, and its variants, as a simple mnemonic to outline the basic steps of legal analysis.²² FIRAC utility is self-evident: placing the correct information in the correct order ensures that one’s argument presents clearly according to its inherent persuasiveness.²³ The same arguably applies to IRAC. More specifically, in persuasive writing, IRAC and FIRAC should help students analyse each legal issue separately, because the formulas compel the discrete identification and treatment of each issue.²⁴ By controlling, packing and wrapping relevant information tidily, IRAC templates infuse legal analysis with certainty and structure.²⁵ Consequently, IRAC advocates consider the structure useful to teach first-year law students the rudiments of legal analysis, especially for grasp

13 Gopen 2011:18.

14 Gopen 2011:18.

15 Guenther “How to brief a case”, <http://www.daveguenther.com/firac/briefcase1.html>. (accessed on 8 May 2019); Maisel & Greenbaum 2001:95.

16 Guenther “How to brief a case”, <http://www.daveguenther.com/firac/briefcase1.html> (accessed on 8 May 2019).

17 Maisel & Greenbaum 2001:97.

18 Wille & Strode 2017:390.

19 Felsenburg & Graham 2010.

20 Biggs & Hurter 2014:12.

21 Biggs & Hurter 2014:12.

22 Graham 2015:706.

23 Gopen 2011:18.

24 Metzler 2003:502.

25 Whalen-Bridge 2014:328.

of doctrinal analysis.²⁶ IRAC and FIRAC were popular for a long time.²⁷ However, neither is without blemish, as will become apparent.

2.2 Criticisms of IRAC and FIRAC

Scholarly efforts to compensate for flaws in the structure of IRAC have spawned a litany of acronymic alternatives, including CRAC, CREAC, MIRAT, IPAAC, ILAC, TREACC, CruPAC, ISAAC, CRRACC, and BARAC.²⁸ Some believe that the legal syllogism ought to ground legal analysis and argument and that legal education should place IRAC and FIRAC in the context of syllogistic reasoning.²⁹ If students understand the syllogism, so runs the argument, they might be competent to apply these templates in that context.³⁰ The syllogism might then become a roadmap that guides students through the analytical process.³¹ The great additional merit of syllogistic reasoning is that it can do much more, as the argument expands.³² The legal syllogism can form the basis of clear and sound thinking, good reasoning and ultimately, good writing.³³

These tools can impart a false sense of security, resulting in students expecting success in replicating the tools to yield identical positive results in real-world situations. This is noticeable in student preparation of documents such as case summaries, legal opinions, and heads of argument.³⁴ IRAC has transcended its primary use as an analytic tool and become a writing formula, to the detriment of student performance.³⁵ Thus, critics lament first that formulaic approaches make law teachers oblivious to the most important and essential skills of writing, without which a professional legal career would be futile.³⁶ Secondly, IRAC provides a

26 Emiri *et al* 2017:45.

27 Gopen 2011:18. Other iterations of such formulas include CRAC = conclusion, rule, analysis and conclusion; CREAC = conclusion, rules, explanation, application, conclusion; MIRAT = material facts, issues, rules, application, tentative conclusion; ILAC = issue, law, application, conclusion; TREACC = topic, rule, explanation, analysis, counterarguments, conclusion; CRUPAC = conclusion, rule, proof, application, conclusion; ISAAC = identify issues, state the law, authority, apply the law, conclusion; IPAAC = issue, principle, authority, application, conclusion; CRRACC = conclusion, rules, analogous case (if applicable), application, conclusion and BARAC = bold, assertion, rule, application, conclusion. See 'Legal methodology', <http://writingdejure.web.unc.edu/resources/legal-methodology/> (accessed on 2 August 2019).

28 Gopen 2011:18.

29 Boland 2006:719.

30 Boland 2006:719.

31 Boland 2006:719.

32 Boland 2006:719.

33 Boland 2006:719.

34 Gopen 2011:19.

35 Graham 2015:705.

36 Gopen 2011:19.

superficial template for legal analysis without commensurate improvement in writing quality.³⁷ We attach the same concern to FIRAC.

Secondly, the most vital and entrenched IRAC deficiency is that it is too simplistic.³⁸ Our FIRAC experience validates this charge against analogous acronymic tools. Like its iterations, IRAC obfuscates the series of complex, interconnected and sophisticated steps to analyse and write about legal problems.³⁹ Some observers view the templates as stupefying reasoning and analysis.⁴⁰ This explains the assertion that IRAC annihilates reasoning and precludes the flexibility and creativity required in legal analysis.⁴¹

Thirdly, some assert that IRAC formats mimic and propagate a positivistic, perhaps formalistic, attitude that reflects conservative and retrogressive attitudes.⁴² Judicial precedent is useful to predict litigation outcomes. But, an overreliance on archaic rules precludes the exploration of possibilities to achieve justice free from flawed historic logic.⁴³ IRAC's distance from inflexibility and normative distance from legal principles may perpetuate injustice, if only for failure to encourage critical perspectives for a start.

The fourth criticism is that IRAC does not address competing legal issues,⁴⁴ because it also excludes both (policy) analysis and counterarguments.⁴⁵ The 'R' in IRAC ("rule") encourages students to assume that the facts inherently disclose and readily suggest a static, finite, coherent and determinate rule that they need only apply to get right answers. In truth, analysis may require a choice between competing, internally inconsistent, and sometimes, conflicting rules.⁴⁶ Therefore, IRAC countenances a limited perspective of law, obscuring the crucially important and necessary lawyering skill of evaluating competing norms and rules.⁴⁷

This criticism and our FIRAC experience lend credence to the notion that IRAC does not teach analytical flexibility and creativity.⁴⁸ Thus, we contend that IRAC and FIRAC hinder student attempts to make their own discoveries (and, therefore, impede learning). Instead, the two propagate quick resolution of legal issues without the required legal analysis and critical thinking.⁴⁹ The main message of IRAC is that the first key step in

37 Boland 2006:719.

38 Graham 2015:682.

39 Graham 2015:682.

40 Emiri *et al* 2017:41.

41 Emiri *et al* 2017:37.

42 Sinclair 2003:105-106.

43 Sinclair 2003:109.

44 Graham 2015:684.

45 Graham 2015:685-686.

46 Emiri *et al* 2017:41.

47 Emiri *et al* 2017:41-42.

48 Emiri *et al* 2017:47.

49 Whalen-Bridge 2014:324.

analysing legal issues is to establish the correct legal principles.⁵⁰ Yet, legal analysis often does not hinge on a single major premise.⁵¹ Effective legal analysis usually requires the synthesis and reconciliation of a complex set of legal “rules” with sometimes equally complex internal and comparative interrelationships.⁵² In addition, legal analysis is often highly fact sensitive or dependent. These complications suggest that IRAC and FIRAC are not suited to the nuance and subtlety inherent in legal analysis.⁵³ Thus, legal practitioners rightly lambaste the poor reasoning and writing skills of new lawyers.⁵⁴ This is not surprising as effective writing seems to presuppose a minimum creativity.

The fifth charge is that IRAC propels students more towards answers than argument.⁵⁵ We view this as detracting the cultivation of critical thinking and problem-solving. These are not only prime required graduate attributes of the national LLB Qualification Standard of the Council on Higher Education,⁵⁶ but critically important skills for the South African legal profession. The pity is that students tend to avoid critical engagement with either the facts or the complex interaction between facts and law. In this way, IRAC subtly discourages the student from pondering the consequences of the legal rule/principle in question if the “facts” of the case being summarised were different to the ones under study. Students often prefer to move rapidly to the “rule of law” and the “application” and “conclusion”. This could be a crude attempt to retrofit a preconceived substantive answer to the mechanistic rigour and procedure of the formula. Thus, IRAC resembles a routine compliance exercise where the student merely populates the framework boxes without actually performing analysis. To be literal, this means filling the boxes without doing any thinking.

The sixth major concern is that an organisational paradigm that separates “explanation” (reasoning or justification) from “application” is not helpful when legal principle is trite.⁵⁷ Presiding officers indicate that the issue itself should dictate analytical structure and depth, and not a set paradigm.⁵⁸ Flexible legal analysis moulds itself to actual legal problems.⁵⁹ IRAC and FIRAC frameworks limit breadth of student research because of their excessive aim for certainty. However, in an overall, global context, the

50 Turner 2012:356.

51 Turner 2012:356.

52 Turner 2012:356.

53 Turner 2012:356.

54 Graham 2015:703.

55 Emiri *et al* 2017:43.

56 Council on Higher Education “Higher Qualifications Sub-Framework, Qualification Standard for Bachelor of Laws (LLB)”, https://www.che.ac.za/sites/default/files/Standards%20for%20Bachelor%20of%20Laws_%20LLB%20final%20version_20150921.pdf (accessed on 8 May 2019).

57 Graham 2015:704.

58 Graham 2015:704.

59 Graham 2015:704.

value of resulting outcomes may appear to be tentative at best.⁶⁰ The strict structure of IRAC also curtails expansive analysis.⁶¹

Our overall view is that frameworks such as IRAC have some value in case summarisation. Nevertheless, the tools have caused much harm to legal study and to reasoning, analysis and writing broadly. This leads us to assess the experience of IRAC's most universal South African variant, the FIRAC method, in the particular context of the UFS LLB curriculum.

3. Evaluation of FIRAC at the UFS

The impetus to use FIRAC in the UFS LLB is that a large proportion of first and second-year students struggle to read and comprehend court decisions and legal texts. This cognition problem invariably impedes the formation of the required graduate attributes, thus reinforcing the impetus to use FIRAC. However, FIRAC assists particularly first-year students to summarise cases, for now leaving aside our negative assessment of even this limited function. Students also use FIRAC to construct legal essays.⁶² Especially disturbing is students' use of FIRAC to formulate legal opinions and heads of argument. This further – but unduly – entrenches the model, supposedly in the name of developing legal analysis and critical thinking.⁶³ Necessarily, UFS law students have internalised FIRAC as a resource to resolve or analyse legal problems in all theory-based subjects, as seems the case elsewhere.⁶⁴

Our view is that FIRAC has no more than a merely residual utility, it being affixed, as we perceive, to the limited though important function of judgment reading, summarisation and reporting. The formulaic FIRAC approach remains problematic, even for the basic task of preparing case summaries, partly and significantly, because it precludes insight and hobbles a battery of essential cognitive skills such as critical thinking and problem-solving. Furthermore, the courts' overall process does not resemble the sequential artifice of a fixed, mechanical and linear cognitive operation. Liberated minds work flexibly and take the material as it comes. They confront its manifold, dynamic and interacting parts in order to achieve accurate and valid decoding and appreciation. Recent Constitutional Court and Supreme Court of Appeal (SCA) judgments often display an elastic synthesis of different elements of judicial reasoning, heedless of IRAC and FIRAC.⁶⁵ Students sometimes struggle to align

60 Whalen-Bridge 2014:328.

61 Whalen-Bridge 2014:328.

62 Snyman-Van Deventer & Swanepoel 2013:518.

63 Biggs & Hurter 2014:12.

64 Swanepoel & Snyman-Van Deventer 2012:128.

65 See, for instance, in respect of the Constitutional Court, *Public Protector v South African Reserve Bank* [2019] ZACC 29 (22 July 2019) and *National Energy Regulator of South Africa and Another v PG Group (Pty) Limited and Others* [2019] ZACC 28 (15 July 2019). The structure of these judgments is based on what is sound, coherent and convenient to the court. See also, *Nandutu*

judicial reasoning with IRAC and FIRAC because the two processes do not always correspond. The two sets of procedures are materially different in pace, timing, flow, rhythm and energy. So much for IRAC and FIRAC attempts to teach the vaunted ability to decode with genuine, sustainable and transferable insight. As suggested earlier, we consider that FIRAC retains a residual value. Students best benefit by using it fluidly, with true understanding and a dominant focus on problem-solving rather than on following the strict rules of a formula.

The term “rule of law” has wrought so much confusion that some students consider it a reference to AV Dicey’s famous theory.⁶⁶ Students often view case summaries as requiring independent research of the law and they apparently regard the court’s ‘stipulation’ of the law as irrelevant. Legal opinions and heads of argument do, of course, require independent student research to find the law and, in that regard, this approach makes good sense. However, FIRAC dilutes the preparation of quality legal opinions and heads of argument, as we have observed over the years.

When summarising cases, students often think that the “application” phase of the FIRAC process requires their own “application” of the law to the facts. In fact, the ‘application’ phase of FIRAC is simply a record of how the court itself applied the law to the facts. Students also misconceive the “conclusion” stage of the FIRAC process, seeing it as a call to give their own ‘conclusion’, not merely to interpret and describe the court’s decision. Thus, during a case summary, the students substitute their opinions for the findings of the court. This confusion appears to stem from the student complaint that IRAC and FIRAC ‘silence the student voice from being heard’. These conclusions often do not follow from the preceding attempts at reasoning. UFS lecturers, therefore, face a choice between cognitive skills development through FIRAC analysis and student expression, logic and analysis. If students express their own voice, their case summaries may be compromised. Lecturers may become reluctant to allow students to venture opinions early in their studies. The temptation is to teach the principles and law through formulaic case summaries, reserving the requirement of analysis and reasoning for more complex modules and stages of the curriculum.

and Others v Minister of Home Affairs and Others [2019] ZACC 24 (28 June 2019); paras. 35-79, where the court merged the “rule of law” and “application” stages of the FIRAC method. In respect of the SCA, see *Minister of Mineral Resources v Stern & others* (1369/2017) and *Treasure the Karoo Action Group & another v Department of Mineral Resources & others* (790/2018) [2019] ZASCA 99 (4 July 2019); paras. 17-48, where the SCA merely cited the facts and then proceeded to merge the issues, rule of law and application; *Rhino Oil and Gas Exploration SA (Pty) Ltd v Normandien Farms (Pty) Ltd & another* (100/2018) [2019] ZASCA 88 (31 May 2019), where the SCA also merged the issues, rule of law and application stages of the FIRAC method and *Mabaso v National Commissioner of Police & another* (1222/2017) [2019] ZASCA 43 (29 March 2019), where the SCA used a coherent and sound approach.

66 The core of Dicey’s conception of the “rule of law” is a principle of legality or supremacy of law. The central premise was that public power may be exercised only in terms of lawful authority and that none may exercise public power arbitrarily. See De Vos & Freedman 2016:78.

This regrettable cognitive skill deficit among students, particularly in reading and comprehension, appears to be a sad consequence of inadequate basic education.⁶⁷ IRAC and FIRAC are useful at the UFS because of the unique challenges confronting our first and second-year LLB students. Yet, we still need a solution to develop the required analytical skills, which have become increasingly important in a world facing a fourth industrial revolution. IRAC, FIRAC and their siblings, are not that solution.

4. Conclusion

FIRAC occupies an enigmatic position in UFS law teaching, and possibly elsewhere. FIRAC tenuously clings to its function as a tool to inculcate critical analysis. Yet, FIRAC has become an expedient tool for cognitive skills development. This has marooned the lecturers in a state of anxious concern about student ability to engage with the discipline of law and participate in legal development. This dilemma prompted us to review the place of FIRAC in our teaching approach. This is, of course, more a process than an event. This article could not even remotely lay claim to being a panacea for suboptimal criticality. We merely seek to be prognostic in finding that FIRAC does not develop critical thinking skills in our LLB programme.

This problem probably stems from the transplant of FIRAC into South African LLB teaching following its forerunner, the IRAC method. Originally hailed as a transcendental tool for critical engagement, IRAC has transformed into a poor tool for legal writing. It oversimplifies the nature and complexity of legal problems. This area cries out for empirical research and we are curious regarding the fit between our experience and the resulting hard evidence. In the meanwhile, we conclude that it does not develop critical thinking skills. This is not a criticism of UFS students. We simply stress that FIRAC must serve its primary purpose of developing critical thinking skills, if it can. This is not to say that FIRAC does not develop cognitive skills at all, but it does so poorly and at great cost to students. We do not intend to replace FIRAC with a specific formula. Instead, we shun analytical methods that depend on rigid and mechanistic templates. Analysis best assumes different forms and this depends on a range of variables such as the relevant purpose, context and material. The sole proviso is that analytical work should be rigorous and usable, particularly from the vantage of cognition and critical engagement. Cognitive skills and critical thinking skills are, of course, intertwined and symbiotic. FIRAC seems to fail on both cognition and criticality, and the time is surely right for it to yield.

67 The cognitive skills deficit does not equate to deficient intelligence. The majority of our students merely exhibit a paucity of tools for effective learning and this does not cast aspersions on their intellect at all. For further development of this distinction, see Motshabi 2018:111-112.

BIBLIOGRAPHY

BIGGS L & HURTER K

2014. Rethinking legal skills education in an LLB curriculum. *Journal for Juridical Science* 39(1):1-30.

BOLAND JM

2006. Legal writing programs and professionalism: Legal writing professors can join the academic club. *St. Thomas Law Review* 18(3):711-736.

COUNCIL ON HIGHER EDUCATION (CHE)

2015. Higher Qualifications Sub-Framework, Qualification Standard for Bachelor of Laws (LLB). https://www.che.ac.za/sites/default/files/Standards%20for%20Bachelor%20of%20Laws_%20LLB%20final%20version_20150921.pdf (accessed on 08 May 2019).

DE VOS P & FREEDMAN W (EDS)

2016. *South African constitutional law in context*. 1st edition. Cape Town: Oxford University Press.

EMIRI O, GIWA A & EHUSANI J

2017. Revisiting the traditional IRAC organisational structure for legal analysis: Towards multidisciplinary approach. *Nigerian Law Journal* 20(1):31-76.

FELSENBERG ME & GRAHAM LP

2010. Beginning legal writers in their own words: Why the first weeks of legal writing are so tough and what we can do about it. *Legal Writing: Journal of Legal Writing Institute* 16(1):223-312.

GOPEN GD

2011. IRAC, REA: Where we are now, and where we should be going in the teaching of legal writing. *Legal Writing. The Journal of the Legal Writing Institute* 17:xvii-xxxviii.

GRAHAM LP

2015. Why-IRAC revisiting the traditional paradigm for writing about legal analysis. *University of Kansas Law Review* 63(3):681-716.

GREENBAUM L

2012. Experiencing the South African undergraduate law curriculum. *De Jure* 45(1):104-124.

GROSSER MM & NEL M

2013. The relationship between the critical thinking skills and the academic language proficiency of prospective teachers. *South African Journal of Education* 33(2):1-17. <https://doi.org/10.15700/saje.v33n2a639>

GUENTHER D

2012. *How to brief a case*. <http://www.daveguenther.com/firac/briefcase1.html> (accessed on 8 May 2019).

JEEVANANTHAM LS

2005. Why teach critical thinking? *Africa Education Review* 2(1):118-129. <https://doi.org/10.1080/18146620508566295>

LOMBARD BJJ

2008. Modelling critical thinking through learning-oriented assessment. *South African Journal of Higher Education* 22(1):1029-1043. <https://doi.org/10.4314/sajhe.v22i5.42923>

LOMBARD BJJ & GROSSER MM

2004. Critical thinking abilities among prospective educators: Ideals versus realities. *South African Journal of Education* 24(3):212-216.

MAISEL P & GREENBAUM L

2001. *Introduction to law and legal skills*. Johannesburg: LexisNexis Butterworths.

METZLER J

2003. The importance of IRAC and legal writing. *University of Detroit Mercy Law Review* 80(4):501-504.

MOTSHABI KB

2018. Decolonising the university: A law perspective. *Strategic Review for Southern Africa* 40(1):104-115.

POTGIETER E

2012. Clinical teaching: Developing critical thinking in student nurses: Education. *Professional Nursing Today* 16(2):4-8.

RIDEOUT J & RAMSFIELD JJ

1994. Legal writing: Revised view. *Washington Law Review* 69(1):35-100.

SELVARATNAM M

2011. High school Physical Sciences teachers' competence in some basic cognitive skills. *South African Journal of Chemistry* 64:231-236.

SINCLAIR MBW

2003. What is the 'R' in IRAC? *New York Law School Law Review* 46(4):457-498.

STRAUSS D

2016. How critical is "critical thinking"? *South African Journal of Philosophy* 35(3):261-271. <https://doi.org/10.1080/02580136.2016.1191853>

SNYMAN-VAN DEVENTER E & SWANEPOEL CF

2013. Teaching South African law students legal writing skills. *Stellenbosch Law Review* 24(3):510-527.

SWANEPOEL N & SNYMAN-VAN DEVENTER E

2012. The need for a legal-writing course in the South African LLB curriculum. *Obiter* 33(1):121-134.

TURNER T

2012. Finding consensus in legal writing discourse regarding organizational structure: Review and analysis of the use of IRAC and its progenies. *Legal Communication and Rhetoric: JALWD* 9:351-364.

WHALEN-BRIDGE H

2014. We don't need another IRAC: Identifying global legal skills. *International Journal of Law in Context* 10(3):315-337. <https://doi.org/10.1017/S1744552314000147>