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Observing Complexity in Teachers' Choices: Preparing Preservice Teachers for Work-Integrated Learning

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Abstract

Although preservice teachers are familiar with classroom life, they are largely unfamiliar with teachers' intentions and reasoning. Those completing a Postgraduate Certificate in Education (PGCE) have just one year to acquire new insights into teaching. This article investigates whether their school-based learning can be enhanced by preparing them to analyse the classroom practices of diverse teachers. A module used to augment work-integrated learning, *Teacher Choices in Action*, has introduced more than 70,000 South African preservice teachers to key choices that all teachers make. They see how diverse teachers enact these choices through guided studies of recorded lessons. We use Legitimation Code Theory to compare lesson observation reports written by 83 PGCE preservice teachers at the start and end of completing this module. Initially, most participants gave superficial descriptions of classroom activities with basic explanations of what teachers do and why. Afterwards, their reports contained more complex interpretations of teaching, with more connections between their lesson observations and insights from their coursework. Guided lesson study potentially empowers them to interpret prevalent teaching practices and consider pedagogic choices for their lessons more thoughtfully and systematically, regardless of their educational backgrounds. It may also address some concerns about vastly different mentoring that preservice teachers receive during the practicum.

Keywords: initial teacher education; pedagogic reasoning; Postgraduate Certificate in Education; Legitimation Code Theory; semantic waves; work-integrated learning; teaching practicum

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Introduction

One-year Postgraduate Certificate in Education (PGCE) preservice teachers have much to learn about teaching in a very short time. Although they have studied school-related subjects as part of a three-year undergraduate major, they are formally introduced to theoretical perspectives on teaching and learning in the year following their bachelor's degree. While some argue that they should get as much school-based experience as soon as possible (e.g., Niemi 2012), others suggest that placing preservice teachers in schools prematurely may obscure their understanding of the intellectual work that supports teachers' classroom practices (Grossman et al. 2009; Hammerness et al. 2005). Problematically, they could mimic classroom routines without the deeper thinking needed to design and support learning. Awareness of teachers' intentions and reasoning creates conditions of possibility for preservice teachers to make sense of what teachers do and why they do things one way rather than another. Without these insights, teaching may seem like a collection of arbitrary activities that keep children busy without much learning (Rusznyak and Bertram 2021).

We present an analysis of lesson observation reports written by a cohort of PGCE preservice teachers at the start and end of a practice-focused module. This nationally available online module, *Teacher Choices in Action*, was designed to supplement work-integrated learning (WIL) by enriching experiential learning in school placements through a guided study of the classroom practices of real teachers, making teachers' reasoning and enacted practices explicit. Analysis of lesson observation reports shows that initially participants predominantly described the visible actions of learners and sometimes of teachers, and sometimes briefly considered the possible reasoning behind teachers' actions. Resultantly, their lesson observation reports often described classroom activities with little sense of how the teacher created a pathway for learning. By the end of the module, their lesson observation reports contained more sophisticated accounts of classroom practices with interpretations of how teachers work with the lesson content knowledge, the schooling context, and the learners' diverse social identities and learning needs. We argue that preservice teachers do not intuitively know how to observe and analyse the nuances of teachers' classroom practices. Our findings suggest that they can make the most of their time in school-based placements when they have conceptual tools to interpret the grounds on which teachers make reasoned choices for their classroom practices.

Affordances and Limitations of School-Based Learning

Internationally, there are variations in how school-based learning is arranged and incorporated into teacher preparation programmes. Initial teacher education curricula, whether school-based apprenticeships or university-based teacher preparation programmes, require that preservice teachers spend extended time working alongside experienced teachers during work-integrated learning. Preservice teachers should learn about teaching by observing experienced teachers and teaching under their guidance. The time spent observing experienced teachers during teaching practicums can be

"constructed as a space in which [preservice teachers] can engage in pedagogic reasoning" (Rusznyak and Bertram 2021, 35) and develop their pedagogical content knowledge of how teachers represent content knowledge and organise learning opportunities (Coetzee, Rollnick, and Gaigher 2022).

Ideally, school-based learning provides opportunities for preservice teachers to learn about

> the process of acting and thinking wisely in the immediacy of classroom life: making split-second decisions; choosing among alternative ways to convey subject matter; interacting appropriately with an array of [learners] and selecting and focusing on particular dimensions of classroom problems. (Cochran-Smith and Lytle 1999, 266)

However, this potential is not always actualised. There has long been concern that work-based learning can be an "uncoordinated trial-and-error personal experience; an exercise in modelling and imitation; an accumulation of practical tips on class management, or a cementing of pre-existing conceptions and misconceptions" (Calderhead 1988, 78).

In contexts where high rates of teacher absenteeism are reported (e.g., Moodley, Sadeck, and Luckay 2018), opportunities for preservice teachers to observe experienced teachers and discuss their teaching with them are, at best, intermittent, leaving preservice teachers with few opportunities to discuss the reasoning behind teachers' lessons with them. Preservice teachers may be expected to deliver unprepared or scripted lessons or supervise classes assigned to the absent teachers with little guidance about what to do and why. In such cases, opportunities for collaborative interactions that potentially promote their understanding of classroom practices can be severely restricted.

Even in highly supportive contexts, the potential for preservice teachers to deepen their understanding of teaching practices is not always adequately realised. Ideally, teachers should make the grounds of their pedagogic choices explicit to the preservice teachers they mentor. A long-standing concern is that practising teachers tend to "focus more on 'doing teaching' rather than on explicating associated pedagogic reasoning" to the preservice teachers they mentor (Berry, Loughran, and Van Driel 2008, 1 271). It is not only scheduling time during the busyness of a school day for more elaborate practice-focused discussions that matters for supporting pedagogic school-based learning. Loughran (2019, 523) expresses concern that "teachers are not encouraged to spend time discussing teaching in theoretically robust ways, or to unpack their teaching to show others what they know, how and why". A South African study showed that even in contexts designed to support the professional learning of preservice teachers, mentor teachers tended to give feedback in the form of classroom tips with little elaboration (Borello 2019). Providing focused feedback on teaching requires mentor teachers to have access to a language of practice that enables them to decompose practice into its constituent parts (Grossman et al. 2009, 2 075). Given the vast differences in educational backgrounds, classroom experiences, teacher education, and mentoring training of

South African teachers, it is not surprising that their mentoring practices differ significantly.

Observing Teaching through New Eyes

All teaching requires the management of ideas and the "organisation of systematic learning" (Morrow 2007, 51). Understood this way, teaching has been described as "intricate and unnatural work" where "decisions about what to do are not appropriately rooted in personal preferences or experiences but are instead based on professionally justified knowledge and on the moral imperatives of the role" (Loewenberg Ball and Forzani 2009, 500). Students starting a teacher preparation programme would need to learn to notice how teachers

> process a myriad of information during instruction and decide, sometimes instantaneously, what to attend to, what to ignore, how to make sense of [learners'] actions, their positioning and participation, their written work, or questions, and how to move the lesson forward. (Santagata, Zannoni, and Stigler 2007, 119)

Although much learning can be gained through working alongside a more experienced teacher, when the reasons for teacher actions are not understood, "learning can be supplanted by ingrained habits" (Mason 2002, 8). To develop expertise during their school-based learning, preservice teachers must "notice in particular ways" (Jacobs, Lamb, and Philipp 2010, 170), becoming sensitised to aspects of classroom practice they have previously overlooked and becoming increasingly precise and articulate about those reasons (Mason 2002). Star, Lynch, and Perova (2011, 118) argue that reasonable observation of another's practice is "a learned skill" not acquired spontaneously. Preparing preservice teachers for school-based learning requires equipping them with a more specialised gaze to meaningfully analyse and interpret teachers' reasoning in the lessons they observe (Langsford 2020).

Mason (2002, xi) introduces "noticing" as a mechanism for deepening teachers' professional learning. Noticing involves developing a sensitivity to how practice is enacted in context while considering a range of alternative actions that might be appropriate under other circumstances. Mason (2002, 1) proposes two benefits of noticing: first, noticing enables teachers to isolate strategies they wish to try out in their teaching; and second, noticing enables teachers to become "more articulate and more precise about reasons for acting". Because discernment develops through practice-based noticing, "things which seem obvious now may have been invisible in the past, and things invisible now may become blindingly obvious in the future" (Mason 2002, 2). When pedagogic reasoning is distilled (whether through articulation by the teacher or interpretation by the observer), "the 'why' of teachers' practice is made visible and, in doing so, begins to illustrate the nature of teachers' [work] in ways that the 'what' and 'how' of practice do not so acutely demonstrate" (Loughran 2019, 527). Accessing the logics of teaching sets up conditions for transformation when considering whether the choices are effective, appropriate, ethical, or inclusive.

Although the literature emphasises the importance of preservice teachers understanding how teachers think, few studies investigate preservice teachers' observations and analysis of the teaching practices they observe. Many studies focus on how preservice teachers observe *learners' reasoning* in different subject domains (e.g., Morris 2006). For example, Santagata and Yeh (2014) found that preservice teachers require significant interventions to notice learners' subject-specific reasoning in mathematics lessons. Barnhart and Van Es (2015) used a video-based course to draw American preservice teachers' attention to learner thinking in secondary school science lessons. Similarly, Wessels (2018, 742) found that South African preservice teachers developed "higher levels of noticing from the third to the fourth year, although not to the highest level of extended noticing" when watching learners' mathematical thinking. These studies focus on how preservice teachers notice and articulate *learners'* thinking and reasoning about subject content. Few studies focus on how preservice teachers observe and interpret teachers' pedagogic intention and reasoning.

Acquiring a New Gaze on Practice

When teachers, like other social actors, learn about participating in a new practice, they become "knowers" through acquiring a new "gaze", which gives them "a particular mode of recognising and realising what counts as authentic reality" (Bernstein 2000, 164). This gaze is acquired through, among other things, engagement with new ideas, relevant experiences, and interactions with significant others (Maton 2014). We consider preservice teachers as developing "knowers" acquiring new ways of perceiving and thinking about classroom practices. The value of watching the teaching of more experienced teachers depends on preservice teachers noticing and understanding what teachers do and why (Amador 2016; Star and Strickland 2008). The capacity of preservice teachers to interpret the intentions and actions of teachers is thus a crucial part of their pedagogic learning and their ability to discern why particular pedagogic choices are appropriate in some contexts but not in others.

In the case of teaching, a new gaze could develop through university coursework, feedback from more expert or experienced practitioners, policy documents, analysis of excellent artefacts of practice, and the study of teachers' practices through live or recorded lessons. Undertaking guided lesson study is another mechanism whereby preservice teachers have opportunities to notice and interpret teachers' nuanced work. This kind of activity opens a window into pedagogic reasoning, which is crucial if "the 'why' of teachers' practice is made available and, in so doing, begins to illustrate the nature of teachers' professional knowledge in ways that the 'what' and 'how' of practice do not so acutely demonstrate" (Loughran 2019, 526–527). Preservice teachers' classroom observations and experiences, discussions with practitioners about their work, and formally learned concepts transmit messages that potentially extend the teaching ideas acquired through watching teachers during their schooling years.

Tracking Shifts in Preservice Teachers' Pedagogic Observations

Legitimation Code Theory (LCT) provides useful analytic concepts that enable us to track shifts in how preservice teachers notice and interpret teaching practices. LCT is a multidimensional framework that is widely used to analyse knowledge in practices over a range of fields, including engineering (e.g., Wolff and Lewis 2021), ballet (e.g., Lambrinos 2019), physical sciences (Blackie 2022; Georgiou 2016), and teacher education (e.g., Langsford 2021; Meidell Sigsgaard 2021; Robinson and Rusznyak 2020). The semantics dimension offers two organising principles that reveal the basis on which enacted practices convey meaning. One of them, semantic density (SD), is relevant to this study. Semantic density conceptualises complexity in terms of the condensation or the relations of meanings within practices (Maton and Doran 2017). The more meanings are related to or within an expression of practice, the stronger its semantic density. In this study, preservice teachers enact weaker semantic density (SD– or SD– –) when their observations narrate teachers' actions with descriptive statements and attribute no further meaning to teachers' intentions or reasoning. In contrast, preservice teachers enact a stronger semantic density (SD+ or SD++) when they attribute more meanings (such as intentions, reasoning, and interpretations) to the teachers' actions they observe.

Comparing the strengths of semantic density of preservice teachers' lesson observations at two points in time allows us to analyse how an intervention, such as a guided study of lessons, enables preservice teachers to observe and interpret teachers' classroom practices with increasing complexity.

Context of the Study

Long-standing concerns have been expressed about the variable quality of learning during the teaching practicum (see Bertram and Rusznyak 2024; Council on Higher Education [CHE] 2010; Deacon 2016). A survey of school-related experiences of PGCE preservice teachers revealed that a sizeable proportion of participants were left unsupervised for extended periods during school-based learning (Moodley, Sadeck, and Luckay 2018). Even where conscientious mentoring takes place, the feedback to preservice teachers tends to offer classroom tips rather than explicated analysis (Borello 2019). During the Covid-19 pandemic, an opportunity was presented to mitigate the vastly different learning opportunities that preservice teachers encounter during their sessions of work-integrated learning. Like elsewhere, South African schools closed for much of 2020 due to state-mandated lockdowns. Teacher education institutions could not secure school-based placements for preservice teachers to complete their work-integrated learning. We were part of a team of teacher educators drawn from 12 South African universities who used the crisis as an opportunity to address these long-standing concerns. We developed a nationally available online module that offers a "learning from practice" supplement to support and enrich school-based learning.

The policy governing teacher education provision in South Africa considers "learning from practice" an essential component of preparing preservice teachers for work-integrated learning (DHET 2015). This form of "practical learning" requires that preservice teachers draw on "discursive resources" to "analyse [teaching] practices across a variety of contexts … in order to theorise practice and form a basis for *learning in practice*" (DHET 2015, 10; italics added). Using the module to augment their school-based learning during the pandemic, PGCE preservice teachers were better able to make the most of their reduced time in school-based placements. Although the Covid-19-mandated social-distancing protocols are no longer in place, and preservice teachers can attend school-based practicums, the module continues to prepare preservice teachers for school-based learning. In its first four years, *Teacher Choices in Action* was completed by more than 70,000 South African preservice teachers from 24 institutions that offer initial teacher education qualifications.

The module comprises six units, each considering sets of fundamental choices teachers must make in every lesson (Hugo 2013). These include critical choices to suit modes of curriculum delivery, knowledge selection and sequencing decisions, classroom interactions that enhance learning, considerations about diverse learner identities that are significant for the design of learning activities and the choice of learning support materials, and critical choices in the creation and management of safe learning environments (see Bertram and Rusznyak 2024). Through guided analysis of a range of lessons, preservice teachers see why different choices are more appropriate than others depending on the mode of delivery, the content to be taught, the school context, and the diverse needs of learners. After each unit, preservice teachers choose a lesson related to their subject and phase specialisation. After observing its recording, participants write a lesson observation report, responding to these prompts:

- Describe the lesson.
- How does this teacher promote learning in this lesson? Consider why teachers have designed and taught the lesson the way they have. Think about how the context, the content, and the needs of the learners influence the teacher's choices.
- Give your thoughts and comments on the lesson.

By undertaking numerous guided and independent lesson observations at different points in the module, preservice teachers have opportunities to articulate what they find significant and noteworthy about teachers' classroom practices across a range of lesson topics and contexts.

Methodology

In this qualitative study, we analyse the lesson observation reports written by PGCE preservice teachers at the start and the end of the *Teacher Choices in Action* module. A qualitative approach adopted in this study enables us to "describe … document, to understand, and to discover" (McMillan and Schumacher 2010, 324) how participants

notice and attribute meaning to the teachers' pedagogic practices in the lessons they observe. With ethical clearance, we analysed 166 lesson observation reports written by 83 preservice teachers who completed the *Teacher Choices in Action* module as part of the work-integrated learning requirements of their PGCE. We selected the first and final lesson observation reports written by participants, which required observation of the same lesson, to see if there were shifts in the complexities of their lesson analysis during the module. Participants observed a Grade 7 lesson on peer pressure (produced by Reading to Learn SA and used with permission). These lesson observation reports yielded 2,119 units of analysis.

To analyse the data, we first identified all instances where the participants observed a teacher's action, implicitly or explicitly, in their lesson observation reports. For this study, we distinguish between four strengths of semantic density. To do this, we devised a translation device that links strengths of semantic density with indicators of their manifestation in our empirical dataset (Maton and Chen 2016). Our translation device (Table 1 below) explains how different strengths manifest in our dataset and gives an illustrative example.

Table 1: Translation device showing indicators for different strengths of semantic density and how they manifest empirically in our dataset

Strength of semantic density		**Indicator**	**Example**
Stronger semantic density ↑	SD++	Differentiated or relational interpretation of teacher's intention/reasoning.	"She represents the concepts in a way that learners of that age will understand; thus, she has very good PCK."
	SD+	Straightforward intention or reasoning is ascribed to teacher's action.	"The teacher asks questions to see if the learners understand."
↓ Weaker semantic density	SD–	Teacher action is noted with no intention/reasoning ascribed	"The teacher checks on each group."
	SD– –	The teacher's actions are unnoticed or not attributed to the teacher	"The lesson is well-structured and is broken down into sections."

Using our translation device (Table 1), we assigned a strength of semantic density to the unit of analysis. In instances where participants attribute a reason or an interpretation to the teacher's action (manifesting stronger forms of semantic density, SD+ or SD++), we also analysed the focus of their interpretation. Three categories of focus emerged inductively from the data, as per Table 2:

Table 2: Nature of the reasoning or interpretation that preservice teachers ascribed to their observations of teachers' classroom practices

Themes	Focus	Example
Doing and activities	Direct or manage learners' participation in class activities	"The teacher and the learners participate in one conversation with the focus being on the lesson topic of peer pressure."
Knowledge and knowing	Promote understanding of lesson content	"Throughout the lesson, she moves between experiences provided by learners, examples, and the complex idea of peer pressure."
Being and belonging	Create norms for learner behaviour and interactions in the classroom	"It was also a supportive atmosphere as the teacher encouraged the class to help each other when mistakes were made."

Using ATLAS.ti, we assigned strengths of semantic density and categorised the nature of the reasoning, thereafter comparing the complexity of participants' lesson observation reports written at the start of the *Teacher Choices in Action* module with their final report written three weeks later when they completed it. Using extracts from the lesson observation reports, we discuss the overall patterns seen across the cohort and then focus on the work of one participant, Maria (a pseudonym). Like all others, she was registered as a PGCE preservice teacher at an urban university in Gauteng and consented to participate in this study. Her lesson observation reports capture many of the shifts typical of the overall cohort.

Limits in the Study

Our dataset is limited to the written lesson observations submitted by participants in their coursework during the *Teacher Choices in Action* module. We acknowledge that they may have noticed things they did not write about. Their submitted responses, however, can be regarded as the most salient aspects of classroom practice that they noticed and deemed important enough to articulate in their written response. In addition, we could not interview participants; therefore, we could not further probe their observations and interpretations of the recorded lessons they watched.

Findings and Discussion

Our analysis shows that initially, participants' lesson observation reports mainly described visible actions of teachers and learners at work, with 48% of entries ascribing simple reasons for these actions. Just 7% of participants offered more complex interpretations of what the teacher was doing and why (SD++). After undertaking the module, many participants interpreted teachers' work in more sophisticated and complex ways than they had done. The occurrence of descriptions of teacher actions without reasons dropped from 37% to 20%. By the end of the module, 77% of descriptions of teachers' actions were coupled with some interpretation of their

intention. Furthermore, those observations that provided more complex interpretations of teachers' classroom practices (coded SD++) increased from 7% to 39%. These differentiated and more nuanced responses accounted for how the teacher responded to particular demands, or the circumstances under which such actions are warranted. They often included theoretically informed perspectives that linked insights from coursework with lesson observations. These changes are seen empirically as shifts from weaker towards stronger forms of semantic density in their lesson observation reports.

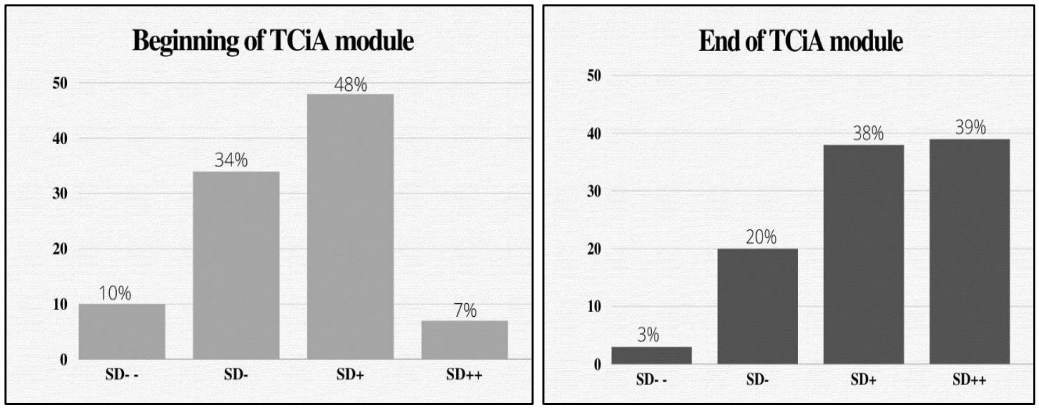

Figure 1: Shifts in the complexity with which preservice teachers observed and interpreted the work of teachers at the start and the end of the *Teacher Choices in Action* module

The following discussion shows how the lesson observation reports analysed dropped dramatically in how participants portrayed teachers as passive in the classroom and offered simple descriptions of their actions. We then explore the simpler and more complex reasons they provide for what teachers do and why. We also show the shifts observed across how teachers work with knowledge, manage learning activities, and create safe classroom environments.

Teacher as a Passive Presence in the Classroom

At the beginning of the module, 10% of participants' observational statements described the lesson without acknowledging the teacher's role in designing and organising a series of learning activities. They frequently did this by referring to the teacher as a passive role-player in the lesson, as seen in this example:

> The lesson was planned very well. The introduction activated learners' prior knowledge and helped them focus on the topic and clear targets were introduced to help learners know what to expect. The activities also built on themselves, becoming more difficult as the learners became more familiar with the passage content.

In this example, the role of the teacher is not mentioned, as if "the lesson" did the work of a teacher. In these and other examples, participants describe what the learners are doing or learning without acknowledging the teacher's intention or role in planning,

organising, and directing the learning activities. The effect of the teacher's actions is noticed but not attributed to the teacher, and the reasoning informing those actions is not acknowledged. In these cases, participants used a passive voice when describing aspects of the lesson. For example, they wrote how the learners "are then required to do individual rewriting for homework" and "There is a whole class introduction" at the start of the lesson.

Maria, too, initially writes as if lessons proceed without intentional activity on the part of the teacher. In her first lesson observation report, Maria observes how "children are working in groups, and each group has an A3 piece of paper with a sentence about peer pressure. The children are asked to cut out the words, jumble them up, and then reconstruct the sentences as a group." The prevalence of participants describing the activity during a lesson without acknowledging how teachers organise learning opportunities confirms the observation of Star, Lynch, and Perova (2011, 118) that noticing the work of teachers is a "learned skill". By the end of the module, the prevalence of observational statements that discussed teachers' work in the passive voice dropped to 3%. In 97% of statements, the teacher as an agent who represents ideas, organised learning activities and manages the classroom environment was noticed and acknowledged.

Noticing Teachers' Actions

When starting the *Teacher Choices in Action* module, participants described the teacher's actions without explicitly attributing intention or reasons in one third of their observational statements. Their observations tended to recount the teacher's actions at various stages in her lesson. For example, they outlined the progression of the lesson as follows:

> The teacher started by asking the learners what they understood by the words "peer" and "peer pressure". She then gave examples of good and bad peer pressure. She asked if anyone had experienced peer pressure. She then introduced a reading that they did together.

Several other participants noticed, but did not give an account for, the teacher's interactions with learners, for example:

> … [T]he teacher engaged and interested during the whole group portion of the lesson. When learners were working in groups, engagement was inconsistent. I felt that some learners were engaged and constantly wanted a chance to speak or come up to the front. In contrast, other learners had difficulties with sentence structure, spelling, and were distracted by the tasking.

Initially, Maria's observational statements frequently constituted "blow-by-blow" accounts of the teacher's actions with very limited interpretation. Maria describes the lesson steps as a series of actions:

> The teacher establishes prior knowledge by discussing with the children what they understand about peers and peer pressure. She then reads from a passage which all the children are required to follow from. … The teacher then talks about how peer pressure can be good or bad and asks for an example from the children and gives examples from the reading. The children then number the different sentences in the passage.

The only interpretation Maria offers initially is that the teacher "establishes prior knowledge". For the rest, she merely describes the lesson in a set of discrete teacher actions. Her response suggests that, at this point, Maria observes the lesson as a series of activities that constitute "classroom busyness" (Rusznyak and Bertram 2021) without explicitly considering how those activities create a pathway for learning.

The importance of preservice teachers noticing the visible routines of teaching without inferring intention or reason on the part of the teacher has been a long-standing concern of teacher educators. Without understanding the "private intentions, goals, reasoning behind decisions and post-lesson reflection that support teacher actions" (Lortie 1975, 62), preservice teachers are likely to fall into mimicry of the routines that they observe (Rusznyak 2008; Rusznyak and Bertram 2021). These routines may not be appropriate for all subject matter, learner needs, and educational contexts. Indeed, the conception that teaching is a set of routines—or "prescriptions" (Shulman 1987, 11)—is an "impoverished" (Morrow 2007, 20) view of teaching (Pugach 2006; Shulman 1987). The shift in our data towards more observational statements offering an interpretation for the visible actions of teachers suggests that guided lesson study enables participants to deepen their understanding of teaching as an intentional and reasoned practice that "requires the capacity to reason pedagogically about teaching and learning that is taking place" (Langsford 2020, 50).

Recognising Teachers' Reasoning

At the beginning of the module, 48% of data statements described teachers' actions with a brief, basic interpretation of their intention or reason (coded SD+). Initially, only 7% provided more complex interpretations of teachers' classroom practices, pulling together insights from coursework, contextual factors, and principles of practice. In contrast, by the end of the module, the statements in which participants provided intention or reasoning to teachers' actions increased from 55% to 77%. A significant shift was seen in the complexity of responses, as participants in this study were developing the ability to distil the "why" of teachers' actions, not just the "what" and the "how" (Loughran 2019), in increasingly sophisticated ways.

Initially, only 7% of statements provided theoretically informed insights into teachers' work, whereas, by the end of the course, detailed explications of practice had increased to 39% of all responses (see Figure 2). Participants drew on concepts learned in their PGCE coursework and during the *Teacher Choices in Action* module. While there was a slight increase in the usage of specialist concepts to interpret teachers' work that promoted inclusive classrooms or participation in classroom activities, this went beyond

employing appropriate jargon. Most noteworthy was the participants' ability to bring conceptual insights to bear on their observations of teachers' work about their management of knowledge and ideas in ways that were accessible to the learners.

Next, we show how participant responses shifted from relatively cursory recognition of teachers' intentions (SD+) to more sustained and complex explication of teachers' actions and their interpretation of the intention or reasoning that informs them (SD ++). In doing so, we show how participants drew more intentionally on insights from the university coursework they had learned before the module and concepts learned from the *Teacher Choices in Action* module.

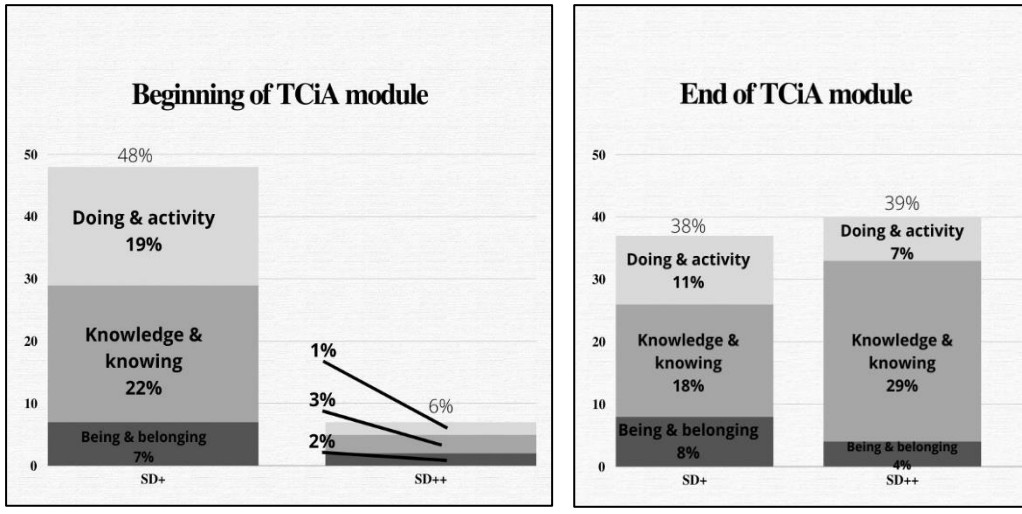

Figure 2: Shifts in focus of reasons at the start and end of the *Teacher Choices in Action* module

Noticing How Teachers Direct Learner Activity

Many participants inferred reasons for enabling learners to participate in the lesson. Some actions that were interpreted in this way included the teacher's interactions with the learners, the methodological choices that the teacher used, and the resources that the teacher used in the lesson. At the beginning of the module, 19% of observational statements identified a teacher action and inferred a brief, basic reason for that action. For example, a participant recognises the teacher's actions and intentions enabling learners to follow along as she read:

> She breaks down the texts into sentences and uses various techniques to ensure learners follow, such as numbering the sentences.

However, in the above example, the nature of the strategies used remained unspecified. Participants also recognise when she gave instructions to learners to encourage them to participate in their learning:

> The teacher encouraged the learners to actively engage with the reading by getting them to mark sentences and underline words, which ensures that learners are following the teacher reading and are actively reading along.

Like her peers, Maria also noticed and rationalised the teacher's interactions as promoting participation in the lesson. Maria noted that the teacher moved around the classroom to check that learners were engaging with the activity she had given them:

> The teacher walks around during times where the children are doing individual work or group work to check on what they are doing and to encourage them.

By the end of the module, however, participants were *explaining* the intentions behind teachers' actions as promoting participation in the lesson 6% more than at the beginning of the module. Participants draw on specialist concepts learned in their PGCE programme, such as *scaffolding* (Wood, Bruner, and Ross 1976) to explicate their observations:

> The teacher greatly supports the learners by offering them the scaffolding/support they need to understand the rest of the text and lesson.

They also draw on many of the concepts learned in the *Teacher Choices in Action* module, such as feedback types and classroom conversations, to make sense of the teacher's reasoning:

> When learners provide their responses, the teacher is generally very good at providing feedback—she gives both product and personal feedback by indicating that the answers are correct and gives encouraging comments such as "Good", and "Excellent".

> She makes sure that different types of learning conversations occur between the learners and her and among the learners themselves to help learners understand complex concepts and prepare them for learning tasks.

By the end of the module participants were more intentionally recruiting concepts learned in their coursework and during the module. This suggests an initial latency in seeing how those concepts can empower them to make sense of classroom practices they observe.

Noticing How Teachers Work to Build Knowledge and Enable Knowing

The most dramatic shift in our dataset is how participants come to describe and explain how teachers work with knowledge. When participants started the module, they provided accounts of how the teacher builds knowledge in 22% of observational statements. Typically, participants focus on the methods or strategies that the teacher employed, such as:

> The teacher reads the passage while learners follow on their own, but this is not a passive process as the teacher keeps learners engaged by asking them to underline relevant words as she continues to ask questions related to the passage.

Maria noticed how the teacher builds learners' knowledge through her interactions with them, "discussing with the children what they understand about peers and peer pressure", and she interpreted these interactions as "establishing *prior knowledge*". Similarly, she noticed that the teacher sounds out the vocabulary, as she "wants [learners] to learn how to pronounce words correctly".

Like other participants, Maria initially tended to describe the teacher's actions but seldom provided nuanced reasons, and even more rarely used insights from her teacher preparation. By the end of the module, however, a third of all participants (including Maria) used more specialised pedagogic concepts and could better articulate their interpretation for the teacher's actions. This was particularly noticeable when discussing how the teacher works with concepts to make knowledge accessible to learners. Several of these observational statements focused on the teacher's explanations of the concept of peer pressure, noting how *semantic waves* could trace how the teacher builds a learning pathway (see Rusznyak 2022). For example, various participants note how the teacher

> moves down the semantic wave by first explaining that peer pressure can also be good and then by giving an example of good peer pressure and checking understanding by asking learners whether it is an example of good or bad peer pressure.

> … increased complexity by stating two kinds of peer pressure, good and bad peer pressure. She also implicitly stated that peer pressure applies across all age groups when she said that peers are people of your own age. This is the upward part of a semantic wave where connections are made of what constitutes a "peer".

Maria, too, drew on the concept of *semantic waves* (Maton 2013) to make sense of the teacher's lesson design, observing that:

> The teacher uses a semantic wave that begins with learners' prior knowledge and experience with the word "peer". Then, with their personal experiences of peer pressure. She uses the word peer to link to the concept of peer pressure. She builds up the concept of peer pressure using a prepared reading on peer pressure. This represents the upward path of her semantic waves.

Maria then uses the concept of *scaffolding* to interpret how the teacher makes knowledge accessible to the learners before integrating this pedagogic move into the semantic wave of the learning pathway created by the teacher:

> She provides scaffolding in her lessons by reading the text with the class, identifying and numbering sentences, by unpacking key terms and highlighting key concepts by

> asking learners to underline these important facts. This represents the downward path of her semantic wave, or unpacking specialist terminology.

It is also important to note that participants did not only draw on specialist ideas learned in the *Teacher Choices in Action* module to explicate the teacher's work. They also drew more extensively on knowledge and concepts they learned during their PGCE coursework. During the *Teacher Choices in Action* module, many participants learned how to recruit professional teacher knowledge, which was latent. For example, the concept of "scaffolding" was mentioned 16 times at the beginning of the module and 24 times at the end. These participants learned about scaffolding early in their PGCE coursework, and the module seems to have enabled them to recognise specialised concepts in the teachers' lesson choices. This participant speaks about "positive reinforcement"—a concept from the work of Skinner (1965) learned in their coursework—as a rationale for giving feedback and interacting with the learners:

> An important feature of learning in this example is the feedback the teacher gives her learners. For example, she provides positive reinforcement, and she has a good rapport with her learners.

By the end of the module, participants understood teachers' work as enabling access to conceptual knowledge in the lesson, viewing teachers more as knowledge workers than before.

Noticing How Teachers Create Safe, Inclusive Learning Environments

By the end of the module, participants' recognition of how this teacher made the classroom a warm, inclusive space revealed greater complexity. At the beginning of *Teacher Choices in Action*, 7% of observational statements recognised that the teacher's interactions with learners promoted a warm, safe learning environment. However, only 2% provided these intentions by drawing on specialised concepts. At the beginning of the module, preservice teacher interpretations of teacher's actions mentioned concepts such as Skinner's (1965) "positive reinforcement". As such, participants focused on how the teacher included the learners through her teaching methods and interactions with the learners.

By the end of the module, there was more complex interpretation in pinpointing when and how the teacher creates safe, inclusive learning spaces. The number of observational statements that explicated the inclusive strategies doubled from 2% to 4%. These observational statements explicated how the teacher interacted with learners, for example:

> The teacher gives learners personal feedback as well and praises the learners earnestly. This provides a safe space for the learners to learn in and increases their confidence in the fluency of English.

The fourth unit of the module introduced a framework for understanding how and why teachers use different forms of feedback (Hattie and Timperley 2007). Notably, some participants theorised the teacher's actions using their knowledge of inclusive principles learned from their PGCE coursework. Maria, for example, draws on the concept of "barriers to learning" from White Paper 6 (Department of Education [DoE] 2001) on special needs and inclusive education:

> She removes barriers to learning, such as an inability to read the English language fluently and/or not understanding the meaning of certain key terms that were required to succeed in the lesson. This is done by asking for learner definitions or understanding of peer and peer pressure words. She also repeats and adds on to the responses she receives from the learners.

A concern raised in the findings beyond this study's scope is that participants used debunked frameworks, such as Gardner's (1983) multiple intelligence framework, as the basis for justifying and interpreting the pedagogic choices they observe. In checking with the lecturers, this was neither included in the module, nor in their university coursework. However, it is possible that students come across the idea on social media or through interactions with teachers they know. The misapplication of theory is a concern that points to the importance of interrogating curricula that seek to support the pedagogical reasoning of preservice teachers for and in practice.

Conclusion

The practicum ideally provides opportunities for preservice teachers to deepen their understanding of teaching. However, this potential may not be fully attained if preservice teachers interpret the classroom practices of teachers in superficial ways. Their professional learning through observation is supported when they are able to identify possible pedagogic options, the choices teachers make, and why they choose some options over others. Lesson observation reports written by a cohort of PGCE students six months into their studies initially contained simple descriptions of classroom activity and teacher actions, sometimes with basic explanations. These findings suggest that teachers' reasoning and intentions are not always self-evident to preservice teachers observing their lessons.

A crucial part of initial teacher preparation is for preservice teachers to acquire a new gaze, which allows them to perceive and interpret practices in new ways. Preservice teachers could gain insight into teachers' intentions if they discuss the reasons for their pedagogic choices during mentoring conversations. However, other studies have found that these kinds of conversations rarely happen in any depth due to time constraints, teachers' workload, the tacit way some teachers plan, and the absence of a shared language of practice. Alternatively, a practice-focused module that supports school-based learning could make the pedagogic reasoning of teachers explicit. Providing preservice teachers with opportunities to integrate and transfer insights from their coursework sets up possibilities for them to understand how teachers enact the

classroom practices across diverse schooling contexts. By providing a shared framework and conceptual language of practice, preservice teachers can start their teaching practicum more equitably prepared, irrespective of their past educational experiences, the schools they attended, and the contextual variations in how they are mentored.

Teacher Choices in Action is one example of a learning-from-practice module that aims to support and enrich the work-integrated learning component of teacher preparation programmes. After completing *Teacher Choices in Action*, most participants could better recognise teachers as decision-makers who strive to choose the most appropriate course of action from various pedagogic options. Participants' lesson observation reports contained a sixfold increase in elaborated and theoretically informed interpretations of teachers' classroom practices. Our findings show how participants, like Maria and others, drew more intentionally on specialised ideas to account for the intention and reasoning for teachers' classroom actions. In particular, we found a substantial increase in the complexity of their noticing of how teachers work with selecting, sequencing, and representing knowledge, how they design and direct learning activities, and how they respond to learner diversities to create more inclusive classroom spaces. This manifested in a strengthening of the semantic density of their lesson observation reports over time, specifically in how they described how teachers work to organise and mediate knowledge.

Guided lesson analysis not only provides preservice teachers with a framework to observe and analyse new aspects of classroom practices, but it also introduces PGCE students to how classroom practices are enacted in both familiar and unfamiliar schooling contexts. South African preservice teachers come from diverse schooling, social, and economic backgrounds, and will go on to teach in diverse schools once they graduate. Guiding preservice teachers through crucial decisions about teaching enables them to see both commonalities in teachers' classroom practices and how they are enacted in contextually responsive ways.

The lessons that preservice teachers observe, either through recorded lesson observation or during their practicum, are not always models of exemplary practice. Teachers do not always consider all pedagogic options and sometimes make choices that are not in the best interests of learning. Nevertheless, with a framework for making sense of classroom practices, preservice teachers could recruit the critical sensibilities they acquire from their university coursework, consider alternative choices, and think of why these choices may or may not be appropriate. This potentially provides a mechanism for reconsidering and transforming ineffective but prevalent practices.

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