

# **How the Theory of Regulatory Compliance Explains the Relationship Between Structural and Process Quality**

**Richard Fiene PhD**

**Penn State Edna Bennett Pierce Prevention Research Center**

**June 2025**

Child care and early education (CCEE) quality has been defined in the research literature along a structural and process continuum where structural quality has been dealing with hard, countable standards while process quality deals with the softer side of quality dealing with adult child interactions. To add more substance to this continuum, process quality is the real heart of quality, getting at the essence of those intricacies of what happens in individual classrooms in individual and group interactions amongst teachers and children. Structural quality are the surrogates to quality, such as measuring compliance with the number of teachers to children in staff-child ratios or group sizes or the number of violations of specific rules, regulations or standards. Structural quality does not look at the softer elements of quality when it comes to interactions or classroom atmosphere, sometimes it looks at the program curriculum but generally not. Structural quality is more concerned with health and safety standards, things that may harm children rather than things that will enhance their environment, that is left to process quality.

Structural quality elements are generally present in licensing rules and regulations, while process quality elements are present in tools such as the Environmental Rating Scales (ERS) or the Classroom Assessment Scoring System (CLASS). The ERS and CLASS are generally not used on their own but are usually a part of other quality initiatives or CCEE systems, such as QRIS (ERS) and Head Start (CLASS). Structural and process quality complement each other in a building block way. Structural quality provides the foundation while process quality builds upon that foundation in an ever expanding manner.

Another way of thinking about quality and its elements, is to think of a quality spectrum where we place structural and process quality on a spectrum line with the associated quality interventions. The quality interventions can be grouped in the following manner for structural quality they would include: licensing, quality rating and improvement systems (QRIS), Head Start Performance Standards, accreditation, and professional development systems. For process quality this is where the ERS and CLASS tools would go. Think of the quality spectrum as using a prism and splitting up light into all its various wavelengths and resulting colors.

How does the theory of regulatory compliance fit into all this? The theory provides the overarching and unifying framework to depict how structural quality and process quality work together. One of the main discoveries with the theory of regulatory compliance was demonstrating the importance of substantial regulatory compliance with structural quality rules. This discovery was made when a ceiling effect was determined in comparing structural to process quality. Process quality follows a linear relationship and its data distribution is normally distributed while structural quality follows a nonlinear relationship and its data distribution is positively skewed. Studies in CCEE over the past 50 years have clearly demonstrated these relationships with structural and process quality when it comes to measuring compliance with the rules, regulations, and standards of each view of quality.

The theory of regulatory compliance has led to refocusing licensing decision-making that takes substantial compliance into account when determining who gets a full license and who does not. It clearly demonstrates how at times substantial compliance is equivalent to full 100% compliance with all rules, regulations, or standards; and, in some cases, is better than full compliance. This has also led to abbreviated, targeted or focused inspections where key predictor rules or high risk rules are assessed which instituted a nuanced program monitoring system called differential monitoring.

It has also led to identifying quality indicators and infusing quality into the licensing rule and regulatory landscape. The use of licensing and quality predictor indicators has been the cornerstone of the differential monitoring approach and for good reason. These licensing and quality indicators can be looked upon as the anchors to structural and process quality. These key indicators statistically predict overall compliance with the full set of rules, regulations, and standards and studies have confirmed this relationship in licensing repeatedly, QRIS, Head Start, accreditation, ERS, and in the development of a new quality indicator scale.

From a statistical methodological point of view, it has led to, at times, significant correlations between structural and process quality but generally these correlations are at the lower end of significance. The reason being is that structural quality follows this ceiling effect or nonlinear skewed data distribution which does not match with the normal distributions found in process quality data distributions. So researchers and scientists should not be surprised to find that their correlations between process and structural quality elements are not statistically significant. When looking at structural quality it is difficult to distinguish between the truly high performers and the mediocre performers. With process quality, it is much easier making that determination. With both structural and process quality it is equally easy to distinguish the high performers from the low performers.

These above assertions have been addressed previously but probably not in one place demonstrating the impact of the theory of regulatory compliance on structural and process

quality. It is hopeful in the coming years that research psychologists and regulatory scientists will attempt to replicate these findings so that the public policy implications can be carried to their logical end point: substantial compliance being a sufficient level of compliance for issuing a full license, and the institutionalization of differential monitoring throughout the CCEE field. For this to happen, the ceiling effect in structural quality needs to be replicated when compared to process quality.

---

Please go to the following research website for the research cited in this research abstract:

<https://rikoinstitute.com>