

Investigating Students Perceptions of the Teacher: Validation of Learner-centered and Teacher-centered Scales

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Abstract

Teaching–learning environments have been widely developed across the globe to enhance student learning and academic achievement. While large-scale international surveys are commonly used to assess students' perceptions of these environments, there remains a notable lack of instruments specifically designed to measure such perceptions at the classroom level, particularly within the Congolese context. In the initial phase of this research, an imported questionnaire was administered; however, its validity and reliability were found to be insufficient. This limitation prompted the development of a new instrument, the Questionnaire Measuring Perceptions of the Teacher (QMPT), during a pilot study. The QMPT is designed to capture two key dimensions of students' perceptions: teacher-centered and learner-centered teaching practices. Findings from the pilot study indicated that the instrument demonstrated acceptable psychometric properties, supporting its preliminary validity and reliability. Building on these results, the present study extends this work by examining the validation processes of the QMPT using a larger sample within the same educational context. The aim is to strengthen the instrument's robustness and confirm its suitability for assessing classroom-level teaching–learning environments in Congo. The study also highlights directions for future research.

Keywords: students' perceptions of teacher, questionnaire validation, instrument reliability, learner-centered, teacher-centered

1. Introduction

The importance of students' perceptions and their role in learning processes is well established in the literature (Biggs et al., 2001). Students' perceptions of their teaching and learning environments (TLE) have become a central focus in higher education research. Work on students' perceptions of learning environments—commonly referred to as SPTLE—emerged from studies examining students' broader educational experiences (Kember & Leung, 2009), leading to the development of large-scale surveys used for international comparison (Bremner et al., 2023; Mundy, 2016). A complementary line of research focuses more narrowly on the classroom level, examining students' perceptions of teacher characteristics and teaching practices (Fernández García et al., 2019; Herbert et al., 2022; Tang, 2025).

Given that students' perceptions of teachers and teaching are recognized as influential determinants of learning achievement (Tang, 2025), the first phase of the present research sought to assess students' perceptions of teachers' goals. For this purpose, the Perceived Teacher's Goals Scale (PTGS) was employed (Nolen, 2003; Spera & Wentzel, 2003). However, in the Congolese context, its psychometric properties proved inconsistent. Although the PTGS (Nolen & Haladyna, 1990a, 1990b) had previously been adapted for use in Congo (Kapinga, 2018), the results revealed limitations in both reliability and validity. These shortcomings motivated the development of a context-specific instrument.

The Questionnaire Measuring Perceptions of the Teacher (QMPT) was subsequently piloted with 153 psychology students at the University of Kinshasa (Kapinga, 2018). The QMPT assesses two dimensions of students' perceptions: teacher-centered and learner-centered teaching, comprising 8 and 10 items respectively. By capturing both orientations, the instrument aligns with longstanding debates on educational paradigms. Although teacher-centered and learner-centered approaches are often contrasted, recent scholarship increasingly recognizes that they are not mutually

exclusive and can jointly contribute to high-quality learning (Elen et al., 2007; Kukiboyeva, 2025; Treve, 2024). The present article reports on the validation process of the QMPT in a Congolese context. Given that students' perceptions vary across cultural settings (Gencoglu et al., 2021; Tang, 2025), further validation—both within Congo and internationally—is required to examine the instrument's cultural robustness.

2. Theoretical Background

2.1 Students Perceptions of Teaching Learning Environment SPTLE: Concept and Measurement

Recent decades have seen substantial transformations in higher education, prompting researchers to reconsider how teaching–learning environments (TLE) are conceptualized and designed in response to increasing diversity and institutional change (Struyven et al., 2010). TLEs can be described from very different perspectives including learning-related aspects such as curriculum, institutional structures, teaching practices, assessment methods, and social relationships (Struyven et al., 2006).

Students' perceptions of teaching and learning environments (TLE) have become a central focus in higher education research as these perceptions have a clear impact on students' behaviors in the TLE. Work on students' perceptions of learning environments—often referred to as SPTLE—emerged from studies examining students' broader educational experiences (Kember & Leung, 2009). This perspective is grounded in Tinto's theory, which posits that students' integration into academic and social life strongly influences their persistence. Consequently, surveys in this tradition assess how students experience various academic and social activities, including interactions with teachers and peers but also engagement with institutional resources (i.e. College Student Experience Questionnaire). At the program level, the Course Experience Questionnaire (CEQ) (Ramsden, 1991) and the Teaching and Learning Questionnaire (Kember & Leung, 2009) for instance are widely used. The CEQ's two-factor structure—teaching quality and workload—has received empirical support (Diseth, 2007), though alternative models have been proposed (Lawless & Richardson, 2002), indicating some instability in its conceptual foundations. Its limited number of dimensions also restricts diagnostic depth.

More recent instruments, such as the HowULearn Questionnaire (Parpala & Lindblom-Ylänne, 2012), integrate items from the Approaches to Learning and Studying Inventory (ALSI) and Experiences of Teaching and Learning Questionnaire ETLQ (Entwistle et al., 2003) to capture both learning approaches and perceptions of academic quality. These instruments share a multidimensional structure, with scales capturing different aspects of the learning environment. Research linking students' perceptions to learning outcomes typically relies on such tools or on more specialized instruments focusing on specific environmental features.

2.2 Students Perceptions of TLE: between Stability and Variability

Internationally, large-scale surveys such as PISA and TALIS are widely used to assess students' perceptions of teachers and teaching (Herbert et al., 2022). These instruments serve not only as diagnostic tools but also as performance indicators that shape funding decisions and contribute to international benchmarking and classification systems (Bremner et al., 2023; Mundy, 2016). Their extensive use has intensified debates regarding the validity of student judgments as indicators of teaching quality and as inputs for educational decision-making (Bremner et al., 2023; Herbert et al., 2022). While some scholars argue that students lack the pedagogical expertise required to evaluate instructional practices (Lenske & Helmke, 2015), others have demonstrated the reliability, cross-national comparability, and predictive value (i.e. learning outcomes) of these surveys (Herbert et al., 2022). Nonetheless, students remain central actors in educational contexts, and their long-term exposure to teaching across multiple teachers provides a meaningful basis for interpreting the learning environment (Herbert et al., 2022).

Research on teaching–learning environments (TLE) reveals a persistent tension between variability and stability in students' evaluations of teaching quality. Substantial between-student variation is consistently observed, determined by individual characteristics such as gender, age, academic performance, and subject interest (Fernández García et al., 2019; Fauth et al., 2020). Cross-national differences further highlight the influence of broader cultural contexts on how students interpret teaching quality (Gencoglu et al., 2021; Tang, 2025). Yet findings from international large-scale assessments show that stability emerges at the classroom level, depending on the dimension of teaching quality examined (Fauth et al., 2020). High retest correlations have been reported for classroom management and student support (Praetorius et al., 2018), as well as for emotional support and instructional quality (Fauth et al., 2020). Herbert et al. (2022) similarly found high stability across six countries—except for cognitive activation—and demonstrated that students' perceptions predict class-level outcomes.

At the classroom level, several factors influence students' perceptions. Strong and positive teacher–student relationships significantly enhance students' perceptions of instructional quality (Agrawa et al., 2024; Prewett et al., 2018; Subedi et al., 2025). Despite individual differences, students sharing the same classroom context tend to develop common perceptions of teaching quality (Talić et al., 2026), indicating the unifying influence of contextual factors. Students' perceptions also affect their learning outcomes: perceptions of teacher caring and trustworthiness are linked to greater engagement, persistence, and academic success (Tang, 2025), while positive perceptions of teaching practices increase participation in learning activities (Kamran et al., 2022).

Overall, research on students' perceptions of teachers has evolved along two main lines: teacher-related characteristics and teaching practices (Carmen-María Fernández-García et al., 2019; Tang, 2025). These perceptions are influenced by individual and contextual factors and play a central role in determining students' achievement.

2.3 Learner-centered and Teacher-centered Paradigms

The learning paradigm underpinning contemporary learner-centered pedagogy (LC) originates from research on teaching–learning methods and serves as the foundation for learner-centered environments (Jouquan & Bail, 2003). Traditionally, educational approaches have been framed along a continuum between teacher-centered and learner-centered orientations (Elen et al., 2007; Jouquan & Bail, 2003). While teacher-centered approaches emphasize transmission, structure, and teacher control, learner-centered approaches prioritize cooperation, autonomy, motivation, co-construction of knowledge, and active learner engagement. LC environments are characterized by active participation, adaptation to learners' needs, autonomy, relevance of learning tasks, shared decision-making, and formative assessment (Bremner et al., 2022; Elen et al., 2007; Sangwa et al., 2025).

Although LC is often positioned in opposition to traditional teacher-centered models, several researchers argue that this dichotomy is overly simplistic. Kaufman (2002) proposes the learning paradigm, which emphasizes the complementary roles of teachers and learners in co-constructing knowledge. Empirical studies similarly show that student-centeredness and teacher-centeredness are not mutually exclusive. Both can contribute to high-quality learning (Elen et al., 2007). Recent findings reinforce this complementarity by establishing that teacher-centered strategies boost foundational knowledge, whereas learner-centered enhance deeper understanding and students' motivations when they are appropriately designed (Kukiboyeva, 2025; Treve, 2024).

Despite this balanced perspective, international organizations have strongly promoted LC, influencing many African countries to adopt it as the preferred—and sometimes required—pedagogical model for improving student achievement and securing funding (Mundy, 2016; Bremner et al., 2023). LC approaches are frequently associated with improved achievement, engagement, critical thinking, and satisfaction (Cudney et al., 2023; Ludigo et al., 2024) and empirical studies report generally positive perceptions of LC (Kerckhoff et al., 2025). However, a systematic review by Bremner et al. (2022) highlights inconsistent LC implementation in low- and middle-income countries. Nonetheless, LC continues to be promoted for its benefits. More specifically, evidence shows that teacher-centered practices continue to dominate instructional settings in African higher education (Abdella & Fataar, 2022; Ngarukiye et al., 2022).

It seems essential to emphasize that the above reported studies are based on students' perceptions of environments designed either as learner-centered or teacher-centered, while based on students' interpretations the TLE may be perceived by the students as both learner-centered or teacher-centered (Kapinga, 2018).

2.4 A Context Specific Instrument to Assess Congolese Student Perceptions of the Teacher

Perceptions of the teacher play a central role in shaping learners' motivation and academic behaviors (Nolen, 2003; Spera & Wentzel, 2003). Despite this importance, most existing studies rely on instruments developed in Western contexts, which are then imported and applied to assess students in African settings. This raises concerns about contextual relevance and conceptual fit. At the early stage of the current research, the Perceived Teacher's Goals Scale (PTGS) was used to capture students' perceptions in a Congolese context. The PTGS is grounded in achievement goal theory, which distinguishes mastery and performance goals as key determinants of learning (Pintrich, 2003). Mastery goals emphasize understanding and personal improvement, whereas performance goals focus on demonstrating ability relative to peers. Because students' learning is influenced not only by their own goals but also by those communicated by teachers (Nolen, 2003; Spera et al., 2002), examining students' interpretations of teachers' goals is essential. However, few studies have investigated students' interpretations (Nolen, 2003; Spera & Wentzel, 2003).

The PTGS was used as no context-specific instrument existed to assess students' perceptions of teachers' goals in African French-speaking contexts. PTGS (Nolen & Haladyna, 1990a, 1990b) had to be adapted to the Congolese context (Kapinga, 2018) for instance it had to be translated. The PTGS assesses three dimensions—mastery, independent thinking, and performance goals—and was translated into French using back-translation procedures. Preliminary cognitive interviewing with Congolese students confirmed item comprehensibility. Two empirical studies followed: a confirmatory factor analysis (CFA) with 188 psychology students from Université Kinshasa (UNIKIN), and an exploratory factor analysis (EFA) with 389 students from UNIKIN and Université Catholique du Congo (UCC).

The CFA results indicated that neither the original three-factor structure nor the adapted models fit the data well. Two alternative models showed acceptable fit: a two-factor model after revisions (SRMR = .06, CFI = .89) and a one-factor model (SRMR = .07, CFI = .87). Reliability analyses revealed inconsistencies: the two-factor model demonstrated acceptable internal consistency ($\alpha = .70$ and $.83$), whereas the one-factor model showed low reliability in the first sample ($\alpha = .38$) but high reliability in the second ($\alpha = .83$). These discrepancies suggest instability in the PTGS when applied in the Congolese context. Positive inter-item correlations further imply that mastery, understanding, and performance goals may be interpreted as overlapping or unified constructs by Congolese students, consistent with research showing that learning goals can converge in practice (Meece et al., 2006). Overall, the findings highlight tensions between reliability and construct validity—two essential components of instrument validation (Field, 2009). Given these limitations, the PTGS requires substantial revision before it can be meaningfully applied in Congolese context. It was therefore decided to continue exploring learners' perceptions through the development of a new, more suitable instrument.

Students' perceptions vary across cultural settings, and Western-developed questionnaires may fail to capture local educational realities (Lindblom-Ylänne et al., 2019). Responding to this need, the Questionnaire Measuring Perceptions of the Teacher (QMPT) was developed and piloted in the Democratic Republic of Congo (Kapinga, 2018). The QMPT integrates both learner-centered and teacher-centered dimensions. The current study addresses the question of whether the QMPT demonstrates acceptable reliability and validity when administered to a larger sample. It was hypothesized that the QMPT would remain reliable and valid within the Congolese higher-education context. Accordingly, this study examines the psychometric properties of the QMPT using an expanded sample drawn from two higher education institutions. Specifically, the paper aims to determine if the factor structure of the QMPT remains consistent in a larger sample size.

3. Method

3.1 Overall Design

The current study aim is to validate the QMPT by assessing its construct validity and reliability through confirmatory factor analysis. Validity refers to the strength of an instrument to assess what it was intended to assess, whereas reliability concerns its capacity to produce consistent results under comparable conditions (Field, 2009; Herrmann et al., 2017). Two statistical procedures were therefore conducted: an assessment of model fit indices and an estimation of Cronbach's alpha coefficients.

3.2 Participants

A total of 463 students voluntarily completed the QMPT. Participants were drawn from the Université Kinshasa (UNIKIN; $N = 374$) and the Université Catholique du Congo (UCC; $N = 89$). The UNIKIN sample consisted of first-year students in Management ($N = 258$) and Political Science ($N = 116$). The UCC sample included first-year Political Science students ($N = 40$) and second-year Communication Science students ($N = 49$).

3.3 Instrument

Data were collected using the Questionnaire Measuring Perceptions of the Teacher (QMPT), recently developed for the Congolese context (Kapinga, 2018). The instrument comprises 18 items distributed across two scales: learner-centered (LC) (10 items; $\alpha = .87$) and teacher-centered (TC) (8 items; $\alpha = .77$). Sample items include: "This professor tells us how to study this course" (LC) and "This professor wants to cover all the course materials; He/she doesn't care about those who do not understand" (TC). All these translated items were written in French, the official language of instruction in the DR Congo. The full questionnaire in French, may be provided if requested. Responses were collected on a 5-point Likert scale ranging from 1 ("never applies to me") to 5 ("always applies to me"). The items were derived from students discourses in relation to their learning (Kapinga, 2018).

3.4 Procedure

Participation was voluntary. Students who agreed to take part remained in the classroom to complete the questionnaire under the supervision of teaching assistants. The purpose of the study and the importance of their contribution were explained beforehand. Participants also provided background information, including name, gender, field of study, secondary-school grade point average, year of study, and faculty. Although no time limit was imposed, completion of the questionnaire required approximately 30 minutes.

3.5 Data Analysis

Data analyses were conducted using AMOS and SPSS (2021 version). AMOS was employed to evaluate model fit through confirmatory factor analysis (CFA), while SPSS was used to compute scale reliability and perform descriptive analyses

3.5.1 Confirmatory Factor Analysis: Goodness of Fit Test

The pilot study established the initial structure of the QMPT (Kapinga, 2018). To examine the adequacy of this predefined structure, a confirmatory factor analysis was conducted, consistent with recommendations for testing theoretically grounded models (Field, 2009). Following Jackson et al. (2009), two competing models were evaluated: a unidimensional model, in which all 18 items load onto a single factor, reflecting observed correlations between the QMPT dimensions, and a two-factor model, corresponding to the learner-centered and teacher-centered scales identified in the pilot study (Kapinga, 2018).

Model fit was assessed using a two-index presentation strategy, combining the Standardized Root Mean Square Residual (SRMR) and the Comparative Fit Index (CFI), an approach recommended to balance Type I and Type II error risks (Hu & Bentler, 1999). Both models were estimated using maximum likelihood (ML), in line with established guidelines (Biggs et al., 2001). The results are displayed in table 1.

Table 1. Adjustment of data to models

Models	SRMR	CFI	Conclusion
One factor model	.10	.62	Poor
Two factor model	.05	.88	Acceptable

Table 1 compares the model-fit indices for the one-factor and two-factor structures of the QMPT. The one-factor model demonstrated poor fit, with SRMR (.10) and CFI (.62) values falling well below recommended thresholds (SRMR < .08; CFI > .90 or .95) (Hu & Bentler, 1999; Marsh et al., 2004). This indicates that a unidimensional representation of the instrument does not adequately reflect the data. The initial two-factor model performed better, yielding an SRMR of .05—within acceptable limits—and a CFI of .88, which approached but did not meet the recommended cutoff. These results suggested the need for model refinement.

To improve the two-factor structure, several statistical criteria were examined, including AMOS modification indices, residual covariances, factor loadings, and theoretical alignment (Hu & Bentler, 1999). Five items—three from the learner-centered scale (Ens35, Ens37, Ens38) and two from the teacher-centered scale (Ens31, Ens43)—were removed due to low factor loadings that weakened composite reliability. The revised model showed improved fit indices, as presented in Table 2, providing stronger support for the two-factor conceptualization of the QMPT.

Table 2. Adjustment after revision of the 2 factors model

Model	SRMR	CFI	Conclusion
2-factor model	.038	.96	Perfect

Examination of the indices reported in Table 2 indicates a substantial improvement in model fit (SRMR = .038; CFI = .96). According to conventional criteria (SRMR < .08; CFI > .95) (Hu & Bentler, 1999), the revised two-factor model demonstrates a good fit to the data. The accompanying path diagram further shows that the unique covariance is positive and statistically significant ($p = .001$), and that the correlation between the two latent factors is moderate ($r = .29$). These results are consistent with the parameter estimates and factor loadings. In addition, all standardized residual covariances fall below the recommended threshold of 2.58 (Brown, 2015), providing further evidence of adequate model specification.

The figure 1 illustrates the final model retained after the confirmatory factor analysis.

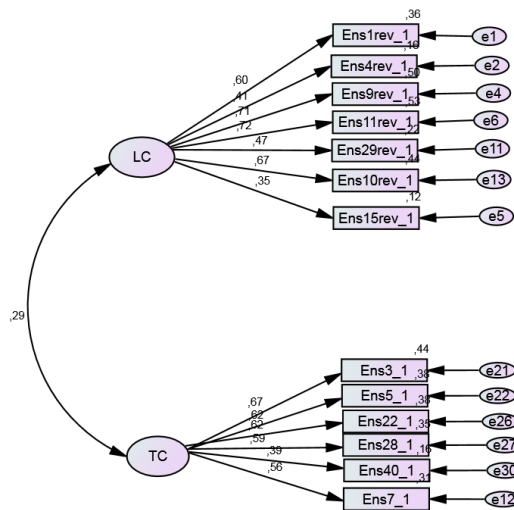


Figure 1. Confirmatory model

Note. LC = Learner-centered. TC = Teacher-centered

Overall, the CFA confirmed that the QMPT comprises two factors assessing students’ perceptions of teachers as learner-centered (7 items) and teacher-centered (6 items). It should be noted that three learner-centered items and two teacher-centered items were removed during the refinement process.

3.5.2 Internal Consistency of Scales and Descriptive Statistics

Cronbach’s alpha coefficients were calculated to evaluate the internal consistency of the revised scales. Table 3 presents the descriptive statistics (means, standard deviations, and number of items) alongside the alpha values.

Table 3. Means, Standard Deviation and alpha of Cronbach coefficient

Scales	Means	Std. Deviation (SD)	α	Items (N)
Learner-centered	28.70	5.38	.80	7
Teacher-centered	24.44	4.96	.75	6

The results presented in Table 3 indicate that both scales exceed the conventional reliability threshold of .70 (Field, 2009; Tavakol & Dennick, 2011), indicating that the QMPT can be considered to be reliable instrument for assessing students’ perceptions of teaching in the Congolese context. The mean scores further suggest that students perceive their teachers as both learner-centered and teacher-centered to a comparable degree, reflecting a balanced view of instructional practices. Detailed item-level means and standard deviations are provided in the Annex for further examination.

3.6 Discussion

The QMPT was validated in the present study through the examination of two competing models: a one-factor and a two-factor model. The first model, informed by the positive correlation observed between the two dimensions, demonstrated poor fit (SRMR = .10; CFI = .62). The two-factor model—derived from the pilot study—showed improved fit (SRMR = .05; CFI = .88) after the removal of three learner-centered and two Teacher-centered items. Specifically, items Ens35 (“This professor has a good relationship with students”), Ens37 (“This professor answers students’ questions”), Ens38 (“This professor encourages us to work”) were removed from the learner-centered scale while Ens31 (“This professor humiliates us”), and Ens43 (“This professor has difficulty approaching students”) were removed from the Teacher-centered scale.

These results suggest that the three learner-centered items may have been interpreted inconsistently by students and were not perceived as reflecting a learner-centered paradigm. Behaviors such as maintaining positive relationships, encouraging effort, or responding to questions may be interpreted negatively when they conflict with students' expectations or learning habits—particularly in contexts characterized by distant teacher–student relationships, limited academic demands, or strong normative beliefs about instructional roles (Lafontaine, 2015; Mugaruka, 2010; Mugaruka & Mwenebatende, 2002). Similarly, the two removed teacher-centered items appear to capture interpersonal rather than pedagogical dimensions, which may explain why students did not associate them with the same construct (Tavakol & Dennick, 2011). This highlights the need for further research into Congolese students' conceptions of teaching and learning.

It is important to emphasize that both the learner-centered and teacher-centered scales capture students' subjective perceptions, which may not necessarily correspond to objective instructional practices (Entwistle, 1991). Rather, they reflect students' interpretations of teaching and learning environments (Fauth et al., 2020; Herbert et al., 2022; Tang, 2025). As already said, these constructs should not be conceptualized as dichotomous or oppositional. Indeed, a given teacher may adopt elements of both concepts depending on instructional goals and contextual demands (Kukiboyeva, 2025; Treve, 2024). Students' perceptions are dynamic, context-dependent, and shaped by factors that extend beyond the scope of a single instrument (Gencoglu et al., 2021; Tang, 2025). Nonetheless, the present study contributes to the development of a new tool capable of assessing students' perceptions of teacher.

3.7 Study Limitations

The study relies solely on students' self-reported perceptions, without direct assessment of the underlying reality. Triangulating self-reports with observational or other complementary methods would strengthen future research. Incorporating additional qualitative techniques such as written journals may also deepen understanding of student perceptions (Carrington & Selva, 2010).

Instrument validation was conducted using a sample drawn from the original pilot population. Multi-institutional and cross-cultural validation studies are needed to examine measurement invariance and broaden the instrument's applicability. Further assessments of validity (convergent, discriminant, criterion) and reliability (e.g., test–retest) are also required. Additionally, future research should therefore examine the QMPT across diverse sociocultural settings to evaluate its generalizability.

Moreover, the validation samples consisted mainly of first-year students. Transitional factors such as adjustment to university life and early identity development may have influenced the results (Yeager & Walton, 2011). Subsequent studies should include more diverse samples to capture a wider range of student experiences.

Finally, although the questionnaire is context-specific, its constructs are grounded in the literature and may be meaningful in other settings (Kapinga, 2018). Assessing the instrument's relevance in varied sociocultural contexts is essential. The next step will involve validating the QMPT in a different national context.

4. Conclusion

Assessing students' perceptions of the learning environment is essential, particularly given the increasing emphasis on learning achievement in higher education. Such perceptions also provide an indirect evaluation of the teaching-learning environment from the student perspective (Biggs, 1993). This study's primary contribution is the development of a reliable and valid instrument for measuring these perceptions, alongside an initial characterization of teaching-learning environments in the Congolese context. Because the QMPT was validated within the same cultural and educational setting in which it was constructed, it may primarily reflect Congolese students' perceptions (Richardson, 2005). Further validation across diverse cultural and institutional settings is required to establish its broader applicability and to determine the extent to which its constructs remain relevant beyond the original context.

Theoretically, the findings indicate and confirm that teacher-centered and learner-centered approaches can coexist within the same educational setting. Accordingly, the QMPT constitutes a valuable questionnaire for researchers and practitioners seeking to understand teaching practices and their perceived effects within higher-education.

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6. Conflict of Interest

The authors declare that there is no conflict of interests regarding the publication of this paper.

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Appendix**Tableau 38****Moyenne et écart-type des items du QMPE (Kinshasa)**

		MEANS	STD
Echelle perception learner-centered N = 432			
Ens9	Ce professeur me fait aimer ce cours	3.88	1.28
Ens11	J'aime la façon transmettre le cours de ce professeur.	3.92	1.29
Ens4	Ce professeur utilise des mots simples pour nous aider à comprendre ce cours	4.16	1.10
Ens15	Ce professeur présente clairement les chapitres du cours	4.50	0.92
Ens10	Ce professeur rend ce cours intéressant	4.04	1.21
Ens1	Ce professeur explique de façon claire le cours.	4.26	1.05
Ens29	Ce professeur nous évalue bien	3.94	1.12
Echelle teacher-centered N = 433			
Ens22	Ce professeur nous fatigue avec ses enseignements*	4.18	1.18
Ens28	Ce professeur nous décourage*	4.29	1.16
Ens3	La façon de transmettre le cours de ce professeur m'énerve*.	4.24	1.14
Ens40	Quand ce professeur enseigne, les étudiants dérangent*	3.68	1.32
Ens5	Ce professeur explique très vite sans se soucier de ceux qui ne comprennent pas*	3.92	1.37
Ens7	Ce professeur rend ce cours difficile*	4.12	1.24

*Ces items ont été inversés

Toutes ces valeurs sont fournies afin d'avoir une base de référence pour les prochaines utilisations de ce questionnaire.

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