



# Influential factors for successful adoption of future school curriculum



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## Dates:

Received: 25 Dec. 2023

Accepted: 11 Mar. 2024

Published: 07 June 2024

## How to cite this article:

Motsi, L. & Makgato-Khunou,  
P., 2024, 'Influential factors  
for successful adoption of  
future school curriculum',  
*African Journal of  
Teacher Education and  
Development* 3(1), a35.  
[https://doi.org/10.4102/  
ajoted.v3i1.35](https://doi.org/10.4102/ajoted.v3i1.35)

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**Background:** Implementing curriculum reforms can be difficult because they call for several adjustments that may contradict deeply ingrained subjective realities and pre-existing beliefs in both the individual and organisational contexts.

**Aim:** This study was sought to investigate the factors that influence the successful adoption of future school curriculum.

**Setting:** The study was conducted in secondary schools in Tshwane South district.

**Methods:** Six hundred questionnaires were distributed to teachers in 10 secondary schools; 496 of the 600 surveys that were sent out were returned, yielding a 67% response rate. A total of 444 questionnaires were processed for analysis after 52 were discarded because of spoilage. Confirmatory factor analysis (CFA) and structural equation modelling (SEM) were used to analyse quantitative data.

**Results:** School leadership support and teacher professional development have a significant impact on the successful adoption of future school curricula.

**Conclusion:** It is evident that teachers need professional development that is available to them in a range of settings and that includes materials that will facilitate their ability to teach classes.

**Contribution:** This study adds to the body of knowledge by presenting a novel theory, curriculum-based reform (CBR) theory, which developed from the task-technology fit (TTF) theory and looked into what factors influence the successful adoption of future school curricula.

**Keywords:** teachers; curriculum and assessment policy statement (CAPS); secondary schools; teacher; leadership; professional development.

## Introduction

Numerous changes have been made to the curriculum throughout the whole country of South Africa since 1994. The first stage of curriculum development was bringing the national curriculum together. This phase attempted to bring the formerly fragmented educational system together and address inequalities in teacher distribution, financial and material resource allocation, and educational access (Gumede & Biyase 2016). The second phase began in 2005 with the introduction of outcomes-based education (OBE). An increasingly appropriate and better educational system was thought to be advanced by the OBE through the integration of performance, abilities, and content (Adu & Ngibe 2014). The goal of the OBE system was to advance outcome-focused, learner-centred teaching and learning. Theoretically, this was a very good education, but in practice, it was difficult to put into practice because of resource scarcity and implementers' ignorance; thus another alteration was made (Mbatha 2016). Furthermore, a number of arguments are presented by Jansen (1998) as to why the OBE component of the curriculum revisions will ultimately backfire on South Africa. He strongly contends that a lack of interconnected planning and policies is the reason behind the non-implementation of OBE. He felt that there was no comprehensive strategy outlining how these new concepts would be applied in schools with limited resources to go along with the curriculum overhaul. Du Preez and Reddy (2014) make a similar case in support of a curriculum implementation approach that aims to prevent resource waste and demoralising experiences. While there is consensus on the goals of reform, Brinkmann (2019) also looked at the discrepancies between policy and practice in curricular change and found indications of divergence in practice. They contend that in actuality, concepts are repositioned and recontextualised, frequently failing to achieve the objectives of social progress that are expected of them. When taken as a whole, these studies offer some insight into the prevalent problems with curricular reform in the South African setting.

The release of the Revised National Curriculum Statement (RNCS) in 2002 marked the third stage of curriculum transformation in South Africa following the end of apartheid. Although the Department of Basic Education (DBE) (2014) said that the RNCS and National Curriculum Statement (NCS) were not new educational systems because they had the same underlying presumptions, main goals, and design elements as C2005, they did enhance and streamline certain of its design elements. Moodley (2013) claims that there were certain implementation issues that the RNCS and NCS encountered that were comparable to those of C2005. These included being aware of the language used in outcome-based education, as well as evaluation and instruction techniques. As a result, as was already mentioned, the RNCS and NCS made a very vain attempt to tackle the issues surrounding the implementation of the South African curriculum. Subsequently, the RNCS encountered persistent implementation difficulties, prompting a review in 2009 that resulted in the development of Curriculum Assessment Policy Statement (CAPS), the current curriculum utilised in South African schools. Roblin, Schunn and McKenney (2017) state that the government of South Africa essentially implemented CAPS in response to the confusion and difficulties associated with the previous curriculum adjustments. To improve curriculum implementation, the modification focused on the CAPS, which took the place of the NCS in 2011. Curriculum Assessment Policy Statement, which was adopted in Grades 1, 2, 3, and 10 in 2012 and is currently being implemented in Grades 4, 5, 6, and 11, is the recently reviewed curriculum that is currently being used in South Africa (Department of Basic Education, 2019). Curriculum Assessment Policy Statement is an update to the NCS, not a new curriculum. The same methodology and technique as the NCS Grades R–12 are still used (Priestley & Philippou, 2019). It is a change to the curriculum, not the method of instruction (Makumane & Khoza, 2020). Subject Statements, Learning Programme Guidelines, and Subject Assessment Guidelines for Grades R–12 were developed to be replaced by this curriculum and assessment policy (DBE 2018).

The objectives of teaching and learning are spelt out in detail, with an emphasis on content areas and weighting. Curriculum Assessment Policy Statement, however, has a number of drawbacks, including an excessive workload brought on by an excessive number of evaluations. According to Dixon et al. (2018), the CAPS curriculum has been criticised mostly for emphasising rote memorisation over critical thinking abilities. In a time where knowledge is easily accessible, it is critical to be able to evaluate, combine, and apply knowledge. Because of the CAPS curriculum's emphasis on fact memorisation, students' capacity for critical thought is stunted, making them less equipped to handle real-world situations and prepare for further education. Indisputable proof of CAPS's inapplicability on modern educational institutions is the lack of practice-focused instruction, learning, and evaluation. In addition, examinations and assessments that emphasise fact memorisation and repetition draw attention to how out of date our curriculum is.

Development of curricula in schools is frequently outpaced by the quick speed at which technology and society are changing. As a result of its static character, the CAPS curriculum is now out of date and does not cover the critical skills and developing fields that are necessary for today's workforce. Rudhumbu (2015) asserts that in addition to these factors, professional assistance, resources, and cultural, political, and technological considerations also have an impact on curriculum development. Given their influence on South African schools, it is imperative to address the swift advances in knowledge, information technology, and worldwide connections. Constant reviews and updates to the curriculum are required because of contextual changes. Support is an essential part of the process at every site in which curriculum is developed. In order to promote the development of curricula, Alvunger et al. (2021) argue for the carefully calibrated regulation of both guidance (such as instructions and materials) and conversation (such as time allocation and space for instructors to debate and work together).

In a similar vein, Nieveen and Kuiper (2021) address the necessity of striking a strategic balance between curriculum regulation (by giving guidance) and the supply of curriculum space for schools (by encouraging school-level curriculum development efforts). A careful blend of top-down (direction and guidance reflecting a shared sense of substantive purpose at policy level), bottom-up (local initiatives and decision making, to enable ownership, individual and collective in translating to site-specific wishes and demands), and side support (exemplification, direction and guidance, translations into possible scenarios outlining site-specific choices; professional development and part of curriculum design capacities as part of pre- and in-service teacher education, schools, school leaders, partners, teachers, etc.) is required to achieve this balance.

Opportunities for participatory curriculum creation are valuable because they let players co-construct and interpret the curriculum together. These chances can help teachers and other actors become more credible as curriculum creators. Nieveen and Kuiper (2021) caution that over-specification can hinder curriculum preparation in schools and classrooms and undermine teacher professionalism, underscoring once more the need for a careful balance between direction and discussion when developing curricula. Principals are therefore vital in assisting teachers adjust in addition to themselves as a result of changes in the environment. It is therefore imperative that school principals receive support in order to develop the skills required to deal with the changing environment (Sayed & Badroodien 2018; Van der Berg, Gustafsson & Burger 2020).

The effective adoption of new curriculum in schools depends on identifying and managing the deciding elements. If the previous circumstances are not properly understood and the effective components of the new

curriculum's implementation are not established, it is unlikely that new curriculum will be implemented successfully in the future. Subsequently, in numerous investigations, researchers have improved and expanded task technology fit (TTF) theory (Howard & Rose 2019; Zigurs & Khazanchi 2008). Nonetheless, the theory's central tenet has not changed (Furneaux 2012). According to TTF theory, the utilisation of a technology and its effect on performance rely on how well it fits or aligns with the task that each individual must do (Furneaux 2012).

Task technology fit theory is especially helpful in illustrating how tasks and technologies interact. This takes into consideration the importance of the environments in which technologies are used (Howard & Rose 2019). Future research on fit factor has been drawn to the TTF model, despite the model's low overall predictive strength (Wu & Chen 2017). The researcher in this study, however, used the curriculum-based reform (CBR) theory, a new theory derived from TTF theory. As observed by (Pyhältö, Pietarinen & Soini, 2018), teachers' ability to make sense of the curriculum is a crucial component of successful required curriculum reform, yet it is frequently disregarded. According to Wallace and Priestley (2017), curriculum authorities are obligated to give teachers, schools, and curriculum brokers who operate at a level above the classroom continual assistance possibilities. The 'quick fix' and one-time workshops provided by curriculum authorities and other curriculum brokers are frequently insufficient because teachers require educational support rather than directive support (Pyhältö et al. 2018). This support should also take into account the teachers' diverse backgrounds and the unique circumstances of their classrooms and schools. Given this, the purpose of the study was to ascertain the key factors that contribute to the effective implementation of CAPS in Tshwane South district secondary schools.

## Research model and hypothesis

Conceptual framework or research model equally serves the purpose of identifying the research problem to be solved or gap to be filled, the appropriate research questions to be asked, the right design and methodologies, data gathering and analysis, discussion, interpretation and presentation of research findings (Merriam & Tisdell 2016). The CBR theory is based on the TTF hypothesis, which is used to identify the key factors that lead to the successful implementation of new curricula in schools. An understanding of the process of implementing curriculum reform in a local African context is gained through the development of a framework, which adds to the body of literature. Global curriculum transformation difficulties exist (West 2014), but the educational crisis of balancing content transformation and teaching and learning has not received much attention (Mendy 2018). The practical contribution of the newly established theory to the contentious and dispersed character of curriculum reform in the context of South Africa (Luckett 2016; Mendy 2018; Msila & Gumbo 2016). The TTF model emphasises the importance of TTF; however, it is not able to

provide a thorough explanation of what constitutes a task environment or how it affects adoption in a complex setting in which there may be a high degree of task interrelatedness. In the light of this, the study's goal was to fill in the gaps in the curriculum reform previously discussed by analysing the essential components that lead to the effective implementation of CAPS in Tshwane South district secondary schools and by applying TTF theory, which was modified to read CBR theory.

According to Lochner, Conrad and Graham (2015), who were quoted by Nevenglosky, Cale and Aguilar (2019), teachers play a crucial role in determining how consistently, successfully, and efficaciously a curriculum is presented in order to support students' growth and advancement. This is so because curriculum implementation is all about how teachers use the tools that are specifically included in a curriculum to offer instruction and assessment (Nevenglosky et al. 2019). However, a thorough review of the literature finds that there are a number of implementation issues with the curriculum, which affect teachers' ability to present the material to students in a true manner. Examinations are one such barrier that has been found by Makuvire and Khosa (2021) and Okoth (2016) to have a substantial impact on curriculum implementation. Because teachers are primarily responsible for implementing curriculum reform, their change is essential to the success of educational reform. Considering the significance of teacher change, it is critical to recognise and address the major issues affecting teachers' readiness and ability to execute the new curriculum (Fu 2020).

Research has so far shown that test-based accountability control (Bai 2017; Fu & Clarke 2018), teachers' low self-efficacy (Sabella & Crossouard, 2018), and teachers' perceptions of their roles as implementers and receivers (Fu 2020; Wang & Zhang 2014) are among the issues influencing teachers' resistance to the reform. The persistently low performance of South Africa's educational system continues to be a problem that hinders social and economic growth. As a result, the government has shifted its focus to guaranteeing the correct administration of the curriculum and enhancing student achievement. Poor curriculum material and the way in which knowledge is imparted to students have been found to be the root causes of difficulties that hinder learning and teaching in South Africa (Schollar 2018). The issue of both quantity and quality in the curriculum, the dearth of textbooks, the absence of teacher pedagogy, and the inadequate coverage of the curriculum make up the other issues with the curriculum (Yuen et al. 2018). Inadequate performance and learning outcomes are also caused by a lack of experience on the part of the instructors and students, as well as a lack of conceptual understanding of the subjects they are teaching. Every year, students fall behind because of the difficulties envisioned in the curriculum content (Amin & Mahabeer 2021).

While the TTF model highlights the significance of TTF, it falls short in offering a comprehensive explanation of what makes up a task environment and how it influences



adoption in a complex context in which tasks may be highly interrelated (Wu & Chen 2017). The implementation of curriculum reforms is challenging. It necessitates a number of changes that could run counter to firmly held beliefs and subjective realities in both personal and professional situations (Fullan 2015). Several barriers prevent curriculum changes from being initiated and implemented, including high costs, unknown outcomes, stakeholder risk aversion, and others. Furthermore, they might necessitate significant expenditures for teacher workforce training and capacity building, school adoption of the new curriculum, the creation of innovative teaching and learning strategies, and the acquisition of new educational materials (OECD 2017). The adoption and modifying the TTF construct was deemed necessary in this study in order to meet its objectives. The five constructs that comprise TTF, a model representation, are task characteristics, technology characteristics, TTF, technology utilisation, and performance impact (Goodhue 1992; Goodhue & Thompson 1995). Four constructs (task characteristics, technology attributes, TTF, and performance impact) were adopted from TTF, modified, and integrated in CBR theory. The term 'task characteristics' was changed to read 'teacher professional development' (TPD), 'technology characteristics' modified to read 'school leadership' (SCLP), 'task-technology fit to read teacher support' (TES), and 'performance impact' to read 'successful adoption of future school curriculum' (SAFSC). In the following section, each of these four constructs were further examined along with the suggested hypothesis.

### School leadership

Many scholars have provided multiple definitions of leadership. For example, Chemers (2014) describes leadership as a process of social influence to motivate others to finish a common task. In this study, the head teacher and the deputy principal's immediate supervisor are the same person – the principal of a school. In tightly regulated learning environments, government command structures are used to determine what must be taught in schools and how. This type of situation, according to Taguma and Barrera (2019), gives implementing staff and their institutions very little flexibility in how they choose to carry out the curriculum, which affects the effectiveness of the curriculum's implementation. According to this viewpoint, the 'fidelity' and 'adherence' of implementers, such as teachers to the updated curriculum determined the 'success' of the implementation (Castro Superfine, Marshall & Kelso 2015; Wedell & Grassick 2017). Administrators are naturally expected to oversee curriculum reform as a major leadership responsibility within the school community (Maponya 2015). Because the new curriculum is implemented at the school level, principals are essential to its implementation. Hence, based on this understanding, this study proposes the following hypothesis:

**H<sub>1</sub>:** Leadership factors have an influence, influence in ensuring the successful implementation of new curricula in schools.

### Teachers' professional development

Sufficient professional development is necessary for teachers who also serve as learning facilitators to deliver curriculum effectively (Gumbo 2020). Podgornik and Vogrinc (2017) propose that in addition to the previously listed material, teachers should also possess a fundamental understanding of methodology. Without a doubt, teachers' opinions of their own abilities are shaped by their experience in a certain field or role. Teachers with more experience in a given profession tend to think they are also more proficient in that field. In addition, teachers play a crucial role in promoting inclusion and equity in education. According to Ulferts (2019), they are in charge of establishing inclusive learning environments and giving underachieving students the additional assistance they require to catch up on their education and successfully integrate into the school community. Teachers must be learning professionals that base their daily practice on an up-to-date, coherent, and integrated body of knowledge in order to fulfil their roles as career enablers and equality agents (Guerriero 2017).

In the light of this, the following hypothesis is put forth:

**H<sub>2</sub>:** The implementation of future school curricula is significantly influenced by professional development factors.

### Teachers' support

Oplatka (2018) asserts that despite the difficulty of the process, implementing educational reforms changes the status quo and motivates teachers to do better. Even if changes that are accepted and applied to South Africa may have unfavourable effects, teachers must modify their teaching methods and worldviews in order to carry out required change (Romanowski & Du 2020). Teachers who have the support of department heads in making decisions in the classroom and who receive the required training and resources from the DBE and school administration are also more likely to report better health outcomes, lower stress levels, and higher job satisfaction (Wright 2017). Sufficient professional development for teachers aids in knowledge expansion and anxiety reduction. Formal frameworks such as courses, mentorship, and external engagement with other schools can facilitate effective professional growth (Mampane 2018). School principals should carefully consider their attempts to modernise the classroom and fulfil the many demands made by teachers, according to Lockton and Fargason (2019). Therefore, the following hypothesis is proposed:

**H<sub>3</sub>:** Future school curriculum implementation success is significantly influenced by factors related to teacher support.

Figure 1 illustrates the proposed conceptual framework model and hypotheses.

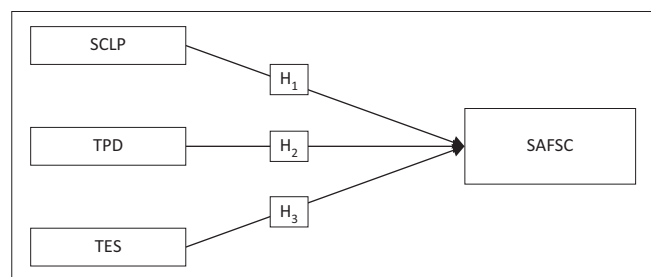
The conceptual framework in Figure 1 is a narrative or graphic representation of the research project. The variables

under investigation include dependent, independent, and occasionally intervening or control factors. In addition, the supposed relationships between the variables are included (Miles et al. 2014). It also serves as an illustration of the significance of the research being conducted and the suitability and applicability of the approaches used to carry it out (Ravitch & Riggan 2017). School leadership, TPD and TES are independent variables predicted to influence SAFSC, the dependent variable.

## Research methods and design

An approach to quantitative research was used in this work. Using numerical and quantitative data to predict and tabulate the data collected from the sample groups was made possible by this methodology. Cross-sectional surveys were used in the research study to collect data from study participants. Purposive sampling was the method employed to select research participants. According to Cohen, Manion and Morrison (2018), using this sampling method, the researcher is able to target a certain group without having to display the entire population by using a non-probability sampling strategy.

A self-administered questionnaire was given to 600 teachers in 10 Tshwane South district secondary schools that were chosen. A total of 496 of the dispensed surveys were returned, yielding a 67% response rate. A total of 52 questionnaires were eliminated because of missing data, out of the 444 that were submitted for evaluation because of a lack of inclusion criteria. A total of 38.3% of the sample's respondents were men, and 61.7% were women. The measurement tool was a structured questionnaire. Thirty-six factors pertaining to the implementation of updated or new curricula were considered. A pilot test was carried out with 20 secondary school teachers in the Tshwane North district to guarantee the questions' clarity and readability. Several items were revised before being formally given to the subjects. In order to confirm the validity of the questionnaire, these 20 respondents were also invited for face validity. The piloted questionnaire's inputs were used to finalise the questionnaire's inputs. A Likert-type scale with five points was employed; 1 meant strongly disagree, 2 disagree, 3 disagree somewhat, 4 agree somewhat, and 5 agree. The relevance of each of the 36 variables was gauged using the scale. Data analysis was performed using the statistical software SPSS version 21.



SCLP, school leadership; TPD, teacher professional development; TES, teacher support; SAFSC, successful adoption of future school curriculum; H, hypothesis.

FIGURE 1: Proposed research model.

## Ethical considerations

University of South Africa College of Education Research Ethics Committee granted the study ethical approval (Ref number: 2014/May/31861113/MC). In this study, participation was entirely voluntary. Anonymity, privacy, and secrecy were always upheld.

## Data analysis and results

To gather some basic data about the respondents, a section on their demographics was included in the questionnaire. Analysing the features of the sample was the first step in the data analysis process. Descriptive statistics were used for this purpose. Table 1 presents the findings.

Overall survey response rates were 61.7% among females and 38.3% among males, demonstrating the greater sway of the female group. The majority of the teachers were graduates, with 214 (48.2%) holding a bachelor's degree or a Bachelor of Technology, 148 (33.3%) holding a diploma, and 24 (5.4%) holding a certificate or a high school diploma. Just 40 (9.0%), as indicated in Table 1, held a postgraduate degree. This indicates that the majority of the teachers possessed the necessary credentials to instruct secondary students. Regarding teaching experience, 159 respondents (35.81%) and 93 respondents (20.9%) had taught for more than 10 years and between 6 and 10 years, respectively.

Only 65 (14.6%) of the respondents had taught for less than a year, compared with around 28.6% (127) who had taught for 2 years to 3 years. These results clearly show that over half of the teachers (56.1%) had been in the classroom for more than 5 years. This indicates that the teaching workforce in the sample consisted of seasoned teachers who had been in the field for a considerable amount of time. Given that the majority of the teachers had more than 5 years of experience in the classroom, experienced teachers made up the teaching workforce in the sample. To assess the consistency and stability of the research tool, the item-to-total correlation and Cronbach's alpha reliability coefficient were computed. The internal consistency or dependability of a collection of items

TABLE 1: Respondents' demographics.

Factor	Item	Frequency	%	Cumulative (%)
Gender	Female	274	61.7	61.7
	Male	170	38.3	100.0
Age group category (years)	30 and below	117	26.4	26.4
	31–40	78	17.6	43.9
	41–50	128	28.8	72.7
	> 50	121	27.3	100.0
Education level	Certificate or high school	24	5.4	5.4
	Diploma	148	33.3	38.7
	Bachelor or B-Tech	214	48.2	86.9
	Postgraduate	40	9.0	95.9
	Other	18	4.1	100.0
Teaching experience (years)	0–1	65	14.6	14.6
	2–5	127	28.6	43.2
	6–10	159	35.8	79.1
	> 10	93	20.9	100.0

was determined using the Cronbach's alpha coefficient. According to established guidelines, the reliability of exploratory research is judged by its Cronbach's alpha coefficient: a value above 0.8 indicates good reliability, a value between 0.6 and 0.8 indicates acceptable reliability, and a value below 0.6 indicates unacceptable reliability (University of California, Los Angeles 2020). In addition, the reliability of each construct was examined (refer to Table 2), and the Cronbach's alpha values were found to be above the 0.70 threshold. Hair, Sarstedt and Ringle (2019) state that this demonstrates the high level of construct reliability.

To investigate the dimensions underlying the data set, an exploratory factor analysis (EFA) was a crucial next step. An EFA using Varimax rotation was conducted for this reason. Numerous significant recommendations made by Hair et al. (2019) were taken into consideration throughout this procedure, such as the removal of items with loadings less than 0.4 and cross-loadings less than 0.35.

In order to determine the correlations between the variables, the Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) tests were also looked at. Given that the KMO in this instance was 0.916 and the Bartlett's test of sphericity was significant at  $p < 0.001$ , the data were deemed appropriate for factor analysis and sufficient correlations existed between the variables. A clear four-factor structure was shown by the EFA result employing the criterion of an Eigen value larger than 1. A total of 0.60% of the variance was explained by the components that were retrieved. Every item loaded higher on its corresponding build than on any other construct because each factor loading was greater than 0.6 on its own factor. This outcome validates the measurement's discriminant validity.

Table 3 displays the findings factor analysis results. In addition, the names of the extract factors were determined by how highly the items loaded on each component. The original source, or the item's meaning as it appeared in the questionnaire, was a crucial consideration when choosing appropriate titles for each component. The retrieved factors have four names as a result of this approach. 'Leadership factors' was the second component in this instance, while 'teacher support factors' was the first. The terms 'teacher professional development factors' and 'successful adoption of future school curriculum' were used to refer to factors 3 and 4, respectively. Verifying those extracted factors was the next step after the EFA.

Structural equation modelling (SEM) was used in two stages for this purpose: the first stage involved hypothesis testing and the second stage involved confirmation. Confirmatory factor analysis (CFA), as it is officially known, was the stage of confirmation that was carried out using maximum likelihood estimation (MLE) in the AMOS software. Every extracted factor was examined within a solitary measurement model. Based on the fit metrics suggested by several academics, the

**TABLE 2:** Cronbach's alpha reliability of the constructs.

Constructs	Cronbach's alpha	Cronbach's alpha based standardised on items	Number of items
SCLP	0.801	0.803	6
TPD	0.780	0.784	6
TES	0.782	0.758	6
SAFSC	0.776	0.768	5

SCLP, school leadership; TPD, teacher professional development; TES, teacher support; SAFSC, successful adoption of future school curriculum; H, hypothesis.

**TABLE 3:** Factor analysis results.

Items	Components: Factors			
	SCLP	TPD	TES	SAFSC
SCLP1	0.866	-	-	-
SCLP2	0.858	-	-	-
SCLP3	0.825	-	-	-
SCLP4	0.822	-	-	-
SCLP5	0.807	-	-	-
SCLP6	0.779	-	-	-
TPD1	-	0.790	-	-
TPD2	-	0.776	-	-
TPD3	-	0.734	-	-
TPD4	-	0.706	-	-
TPD5	-	0.697	-	-
TPD6	-	0.695	-	-
TES1	-	-	0.873	-
TES2	-	-	0.863	-
TES3	-	-	0.836	-
TES4	-	-	0.830	-
TES5	-	-	0.823	-
SAFSC1	-	-	-	0.837
SAFSC2	-	-	-	0.758
SAFSC3	-	-	-	0.742
SAFSC4	-	-	-	0.736
SAFSC5	-	-	-	0.723
Initial eigenvalues	9.721	2.948	2.281	1.983
Variance (%)	20.324	18.038	17.274	14.952
Cumulative (%)	20.324	38.364	55.658	70.602

SCLP, school leadership; TPD, teacher professional development; TES, teacher support; SAFSC, successful adoption of future school curriculum; H, hypothesis.

measurement model was evaluated (Byrne 2010; Hair et al. 2019; Kline 2016). Among the metrics employed were Chi-square ( $\chi^2$ ), the root mean square error of approximation (RMSEA), and the comparative fit index (CFI). Furthermore, Byrne (2013) and Hair et al. (2019) advise adopting normed Chi-square ( $\chi^2/df$ ), which was performed in this work, because the Chi-square is quite sensitive to sample size.

All of the fit indices that were used were over the recommended threshold, according to the measurement model. The normed Chi-square ( $\chi^2/df$ ) value in this instance is 2.786, which is less than 5.0. In a similar vein, the CFI value is far higher than the 0.90 threshold. Finally, a satisfactory fit of the measurement model is also shown by the RMSEA, which has a value of 0.072, which is less than the threshold value of 0.08.

## Structural equation modelling

Testing the suitability of the fully developed structural model and hypotheses came next following the CFA. The entire



**TABLE 4:** Estimates of the hypothesised model.

Path	Hypothesised relationship	Path coefficient (original sample)	<i>p</i>
SCLP → SAFSC	H1	0.159	< 0.01
TPD → SAFSC	H2	0.206	< 0.01
TES → SAFSC	H3	-0.045	> 0.05

SCLP, school leadership; TPD, teacher professional development; TES, teacher support; SAFSC, successful adoption of future school curriculum; H, hypothesis.

structural model produced results that were consistent with the data about the proposed causal relationship (normed Chi-square = 2.786; CFI = 0.931; RMSEA = 0.072). The results showed an excellent fit of the postulated structural model because all of these fit indices met their crucial criteria. Furthermore, the measurement model that was previously confirmed by CFA served as the basis for testing this structural model. The hypothesised model's parameter estimates contained values within the acceptable range. Two hypotheses, namely the causal relationship from 'leadership factors' to 'successful adoption of future school curriculum' and the causal relationship from 'teacher support factors' to 'successful adoption of future school curriculum', can be statistically supported, according to the structural model evaluation.

The research hypotheses were tested using SEM. In addition, the structural model's analytical results are shown in Table 4. Three factors that are statistically relevant for the SAFSC are confirmed by the route coefficients and their significant levels (*p*-value). In this study, the results indicate that characteristics related to TPD (path coefficient = 0.206, *p* < 0.01) and leadership (path coefficient = 0.159, *p* < 0.01) are significant. This indicates that the H1 and H2 hypotheses are supported. Although teacher support variables (path coefficient = -0.045, *p* > 0.05) are demonstrated to be an insignificant influence factor towards the SAFSC, there are not enough data to support hypothesis H3. This finding contradicts Taole's (2015) suggestion that throughout implementation, subject advisors should get support to boost their confidence and lessen their resistance to change. They should receive adequate resources, assistance, and training throughout the application process. It would be unreasonable to expect instructors to apply the curriculum if it is not taught appropriately. Table 4 shows the dependent variable, for which 55% of the variance is explained by all factors added to the control variables. This shows that there is enough predictive power in the proposed framework to explain the factors influencing the successful implementation of future curricula in schools. Table 4 displays the dependent variable, for which all factors combined with the control variables account for 55% of the variance. This suggests that the suggested framework has sufficient predictive ability to explain the variables influencing the SAFSC. Table 4 displays all of the test findings for the hypothesis.

## Discussion

The goal of this research is to identify the variables that affect the SAFSC in the Tshwane South district. H1: The results of this study indicate that leadership was essential to the CAPS's

implementation in South African classrooms. The impact of leadership on curriculum development has been shown in earlier studies, as seen by the works of Darling-Hammond et al. (2017), and Bantwini and Moorosi (2018), which lends credence to the study's conclusions. School principals are more likely to have an impact on the acceptance of a new curriculum because they are the leaders who determine the institution's direction, supervise the quality of education, and oversee staff management. This outcome is consistent with the findings of Tirri et al. (2021), who noticed that school principals engage in a variety of professional leadership activities in the classroom, such as monitoring and supervising teachers' work and providing advice to enhance their techniques. This outcome is consistent with the Department of Education's (2015) results, which indicate that a key leadership role that is essential to their responsibilities is assisting with curriculum delivery.

H2: According to the study, TPD has a significant impact on whether or not a new curriculum is accepted. Understanding the curriculum by instructors is essential for its proper application in the classroom. This finding relates to the impact of teacher professionals on curriculum improvement and is consistent with the findings of many other studies (Darling-Hammond et al. 2017; Johns & Sosibo 2019; Mampane 2019). Furthermore, this research suggests that when the government promotes TPD, there is a greater chance that feature curriculum will be adopted and taught in schools. This is consistent with findings from a previous study, in which Phasha, Bipath and Beckmann (2016) studied teachers at the Further Education and Training (FET) level to uncover their perceptions on Professional Development (PD) before the new curriculum was put into place. The findings indicated that most teachers thought they would require empowerment and PD to deal with the changes. Without the PD that teachers in South Africa require to apply the new curriculum, students' performance would suffer.

H3: This result indicates the lack of support that Tshwane South district teachers received for implementing CAPS in secondary education. However, a number of prior inquiries have verified that the district's insufficient finances prevent it from providing curriculum consultants with the necessary help. This outcome is consistent with the research of several other scholars, such as Rammuda (2019), who assert that the district does not have the resources to buy instructional aids. In addition, Beukes (2017) and West and Meier (2020) notice that there are two serious issues: insufficient funding and improper use of public funds. Supporting the arguments made by Beukes (2017), West and Meier (2020), and Rammuda (2019) above, McLennan et al. (2017) claimed that curriculum advisors only visited schools once a year to assess how far along teachers and principals were with the curriculum because districts lack the resources or funding to visit schools. The findings of this study concur with Blignaut (2020) who contends that 'curriculum and pedagogic change will only succeed if we embrace new ways of viewing knowledge and as well as embracing multiple knowledge traditions' in order to overcome this theorising difficulty

facing curriculum studies in South Africa. In order to achieve this, curriculum implementation must be inclusive and contextualised throughout South Africa's many cultural contexts.

## Conclusion and direction for future research

This study aimed to explore the variables that affect the effective implementation of new curricula in schools. Three hypotheses were formulated based on these independent variables, and each hypothesis was tested against the dependent variable of the successful acceptance of the school curriculum. The results of this study, which are supported by research, indicate that school leadership support and TPD have a significant impact on the SAFSC. Inadequate classrooms, a lack of teaching and learning resources, and a lack of initial and ongoing staff training all hinder school management teams' ability to effectively manage curricular changes. It was noticed that while the school management team, who are seen as the primary facilitators and managers of the institution, bears accountability and responsibility for the successful implementation of curriculum changes, curriculum change has proven to be disastrous in certain schools. Further research may be performed on the best ways to support and train principals so they can foster democratic engagement and distribute the locus of control in curriculum decision-making more fairly among other stakeholders.

## Acknowledgements

The authors would like to thank all the secondary school teachers in Tshwane South District, without which, it would have been impossible to produce this piece of academic work. The study could not have been completed without the support of the secondary school teachers in Tshwane, South District, for which the author is grateful for.

This article is partially based on the author's thesis entitled 'A model for professional skills development for school teachers' towards the degree of PhD in Education in the Department of Science and Technology Education, University of South Africa, South Africa in 2017, with supervisor(s) Prof M.Z. Ramorola.

## Competing interests

The authors declare that they have no financial or personal relationships that may have inappropriately influenced them in writing this article.

## Authors' contributions

L.M. was responsible for the design, data collection, conceptualisation and data analysis of this article. P.M.-K. was responsible for the interpretation of the results and wrote the methodology.

## Funding information

This research received no funding from public or commercial sector. Study assistance in the form of tuition fees was paid by the University of South Africa.

## Data availability

The data that support the findings of this study are available from the corresponding author L.M. upon reasonable request.

## Disclaimer

The views and opinions expressed in this article are those of the authors and are the product of professional research. It does not necessarily reflect the official policy or position of any affiliated institution, funder, agency, or that of the publisher. The authors are responsible for this article's results, findings, and content.

## References

- Adu, E.O. & Ngibe, N.C.P., 2016, 'Continuous change in curriculum: South African teachers' perceptions', *Mediterranean Journal of Social Science* 5(23), 983–989.
- Alvunger, D., Soini, T., Philippou, S. & Priestley, M., 2021, 'Conclusions: Patterns and trends in curriculum making in Europe', in M. Priestley, D. Alvunger, S. Philippou & T. Soini (eds.), *Curriculum making in Europe: policy and practice within and across diverse contexts*, Emerald, Bingley.
- Amin, N. & Mahabeer, P., 2021, 'Curriculum tinkering in situations of crises and inequalities: The case of South Africa', *Prospects* 51(1), 489–501. <https://doi.org/10.1007/s11125-021-09564-8>
- Bai, J., 2017, 'Teachers' understandings and actions towards China's new curriculum reforms in the context of Chinese examination-oriented education', Unpublished doctoral dissertation, The Pennsylvania State University, viewed 22 March 2024, from <https://etda.libraries.psu.edu/catalog/14399jwb5749>.
- Bai, Y., Mo, D., Zhang, L., Boswell, M. & Rozelle, S., 2016, 'The impact of integrating ICT with teaching: Evidence from a randomized controlled trial in rural schools in China', *Computers & Education* 96, 1–14. <https://doi.org/10.1016/j.compedu.2016.02.005>
- Bantwini, B.D. & Moorosi, P., 2018, 'School district support to schools: Voices and perspectives of school principals in a province in South Africa', *International Journal of Leadership in Education* 21(6), 757–770. <https://doi.org/10.1080/13603124.2017.1394496>
- Beukes, S., 2017, *The effect of corruption on the 'available resources' for the right to housing as espoused by the Constitution of South Africa*, etd.uwc.ac.za, viewed 13 October 2020, from <https://etd.uwc.ac.za/handle/11394/5510>.
- Blignaut, S.E., 2020, 'Transforming the curriculum for the unique challenges faced by South Africa', *Curriculum Perspective* 41(1), 27–34. <https://doi.org/10.1007/s41297-020-00104-6>
- Brinkmann, S., 2019, 'Teachers' beliefs and educational reform in India: From 'learnercentred' to 'learning-centred' education', *Comparative Education* 55(1), 9–29.
- Byrne, B.M., 2013, *Structural equation modeling with AMOS: basic concepts, applications, and programming*, Routledge, New York.
- Castro Superfine, A., Marshall, A. & Kelso, C., 2015, 'Fidelity of implementation: Bringing written curriculum materials into the equation', *The Curriculum Journal* 26(1), 164–191. <https://doi.org/10.1080/09585176.2014.990910>
- Chemers, M., 2014, *An integrative theory of leadership*, vol. 10, Laurence Erlbaum, New York, NY.
- Cohen, L., Manion, L. & Morrison, K., 2018, *Research methods in education*, 8th edn., Routledge, Abingdon.
- D'Ambra, J., Wilson, C.S. & Akter, S., 2013, 'Application of the task technology fit model to structure and evaluate the adoption of Ebooks by academics', *Journal of the American Society for Information Science and Technology* 64(1), 48–64. <https://doi.org/10.1002/asi.22757>
- Darling-Hammond, L., Hylar, M.E., Gardner, M. & Espinoza, D., 2017, *Effective teacher professional development*, Research Brief, Learning Policy Institute, Washington, DC.
- Department of Basic Education (DBE), 2014, *Report on the Annual National Assessments of 2014: Grades 1 to 6 & 9*, viewed 14 April 2024, from [https://www.saqa.org.za/docs/rep\\_annual/2014/REPORT%20ON%20THE%20ANA%20OF%202014.pdf](https://www.saqa.org.za/docs/rep_annual/2014/REPORT%20ON%20THE%20ANA%20OF%202014.pdf).
- Department of Basic Education, 2018, *Annual report 2017/18*, viewed n.d., from <https://www.gov.za/documents/department-basic-education-annual-report-20172018-1-oct-2018-0000>.
- Department of Education, 2015, *South African standards for school principalship*, Department of Education, Pretoria.



- Dixon, K., Janks, H., Botha, D., Earle, K., Poo, M., Oldacre, F. et al., 2018, 'A critical analysis of CAPS for Life Skills in the Foundation Phase (Grades R–3)', *Journal of Education* 71, 6–23. <https://doi.org/10.17159/2520-9868/i71a01>
- Du Preez, P. & Reddy, C., 2014, *Curriculum studies: Visions and imaginings*, Peason Holdings Southern Africa (Pty) LTD: Liesbet van Wyk, Cape Town.
- Fu, G. & Clarke, A., 2018, 'Individual and collective agencies in China's curriculum reform: A case of physics teachers', *Journal of Research in Science Teaching* 56(1), 45–63. <https://doi.org/10.1002/tea.21467>
- Fu, G., 2020, 'The knowledge-based versus student-centered debate on quality education: Controversy in China's curriculum reform', *Compare: A Journal of Comparative and International Education* 50(3), 410–427. <https://doi.org/10.1080/03057925.2018.1523002>
- Fullan, M., 2015, *The new meaning of educational change*, 5th edn., Teachers College Press, viewed 16 November 2023, from <https://books.google.fr/books?id=YxGTCwAAQBAJ>.
- Furneaux, B., 2012, 'Task-technology fit theory: A survey and synopsis of the literature', in Y.K. Dwivedi, M.R. Wade & S.L. Schneberger (eds.), *Information systems theory: Explaining and predicting our digital society*, vol. 1, pp. 87–106, Springer, New York, NY.
- Goodhue, D.L. & Thompson, R.L., 1995, 'Task-technology fit and individual performance', *Management Information Systems Quarterly* 19(2), 213–236. <https://doi.org/10.2307/249689>
- Goodhue, D.L., 1992, 'User evaluations of MIS success: What are we really measuring?', *Proceedings of the Hawaii International Conference on Systems Sciences* 4, 303–314.
- Guerriero, S. (ed.), 2017, *Pedagogical knowledge and the changing nature of the teaching profession*, OECD Publishing, Paris.
- Gumbo, M.T., 2020, 'Professional development of technology teachers: Does their training meet their need?', *Perspectives in Education* 38(1), 58–71. <https://doi.org/10.18820/2519593x/pie.v38i1.5>
- Gumede, V. & Biyase, M., 2016, 'Educational reforms and curriculum transformation in post-apartheid South Africa', *Environmental Economics* 7(2), 69–76. [https://doi.org/10.21511/ee.07\(2\).2016.7](https://doi.org/10.21511/ee.07(2).2016.7)
- Hair, J.F., Black, W.C., Babin, B.J. & Anderson, R.E., 2019, *Multivariate data analysis*, 8th edn., Cengage, Boston, MA.
- Howard, M.C. & Rose, J.C., 2019, 'Refining and extending task-technology fit theory: Creation of two task-technology fit scales and empirical clarification of the construct', *Information & Management* 56(6), 103–134. <https://doi.org/10.1016/j.im.2018.12.002>
- Jansen, J.D., 1998, 'Curriculum Reform in South Africa: A critical analysis of outcomes-based education', *Cambridge Journal of Education* 28(3), 321–331. <https://doi.org/10.1080/0305764980280305>
- Johns, L.A. & Sosibo, Z.C., 2019, 'Constraints in the implementation of continuing professional teachers development policy in the Western Cape', *South African Journal of Higher Education* 33, 130–145. <https://doi.org/10.20853/33-5-3589>
- Kline, R.B., 2016, *Principles and practice of structural equation modelling*, 4th edn., The Guilford Press, New York, NY.
- Lockton, M. & Fargason, S., 2019, 'Disrupting the status quo: How teachers grapple with reforms that compete with long-standing educational views', *Journal of Educational Change* 20(4), 469–494. <https://doi.org/10.1007/s10833-019-09351-5>
- Luckett, K., 2016, 'Curriculum contestation in a post-colonial context: A view from the South', *Teaching in Higher Education* 21(4), 415–428. <https://doi.org/10.1080/1362517.2016.1155547>
- Makovc Radovan, D., 2017, 'Pojmovanja vloge učitelja v procesih načrtovanja in izvajanja pouka v srednješolskem izobraževanju', Doctoral dissertation [Conception of the role of the teacher in the process of planning and conducting instruction in secondary education. PhD Dissertation], Univerza v Ljubljani, Filozofska fakulteta, Oddelek za pedagogiko in andragogiko.
- Makumane, M. & Khoza, S., 2020, 'Educators' reasonings and their effects on successful attainment of curriculum goals', *South African Journal of Higher Education* 34(2), 95–111.
- Makuvire, C. & Khosa, M.T., 2021, 'Barriers to the effective curriculum implementation: Secondary school teachers speak out', *International Journal of Educational Research* 4, 41–60.
- Mampane, S.T., 2017, 'Training middle managers of South African public schools in leadership and management skills', in N. Popov, C. Wolhuter, J. Kalin, G. Hilton, J. Ogunleye, E. Niemczyk, et al. (eds.), *BCES Conference Books, vol. 15: Current business and economics driven discourse and education: Perspectives from around the world*, pp. 143–150, Bulgarian Comparative Education Society, Sofia, viewed 19 March 2024, from <https://files.eric.ed.gov/fulltext/ED574185.pdf>.
- Mampane, T.J., 2018, 'School heads of department's role in ensuring teacher professional in Mathematics: the South African context', *Bulgarian Comparative Education Society Conference Books*, vol. 16, pp. 189–1895.
- Maponya, S.H., 2015, 'The role of the principal as an instructional leader in improving learner achievement in South African schools', Doctor of Education: Dissertation, University of South Africa.
- Mbatha, V., 2016, 'Teachers' experiences of implementing the CAPS in grade 10 in selected schools at Ndwendwe in Durban', Master's dissertation, University of South Africa.
- Mc Lennan, A., Muller, M., Orkin, M. & Robertson, H., 2017, *District support for curriculum management change in schools*, Witwatersrand University, Johannesburg.
- Mendy, J., 2018, 'Rethinking the contribution of organizational change to the teaching and learning of organizational behaviour and human resource management: The quest for balance. In J. Mendy (ed.), *Teaching human resources and organizational behaviour at the college level*, pp. 103–132), IGI Global, Hershey, PA.
- Merriam, S.B. & Tisdell, E.J., 2016, *Qualitative research and case study applications in education*, John Wiley and Sons, San Francisco, CA.
- Miles, M.B., Huberman, A.M. & Saldaña, J., 2014, *Qualitative data analysis: A methods sourcebook*, 3rd edn., Sage, Los Angeles, CA.
- Moodley, G., 2013, 'Implementation of the curriculum and assessment policy statement: Challenges and implications for teaching and learning', Master's dissertation, University of South Africa.
- Mouton, N., Louw, G.P. & Strydom, G., 2013, 'Critical challenges of the South African school system', *International Business & Economics Research Journal* 12(1), 31–44. <https://doi.org/10.19030/iber.v12i1.7510>
- Msila, V. & Gumbo, M.T., 2016, *Africanising the curriculum: Indigenous perspectives and theories*, African Sun Media, Cape Town.
- Nevinglosky, E.A., Cale, C. & Aguilar, S.P., 2019, 'Barriers to effective curriculum implementation', *Research in Higher Education Journal* 36, 182882.
- Nieveen, N. & Kuiper, W., 2021, 'Integral curriculum review in The Netherlands: In need of dovetail joints', in M. Priestley, D. Alvunger, S. Philippou & T. Soini (eds.), *Curriculum making in Europe: Policy and practice within and across diverse contexts*, pp. 1–28, Emerald Publishing Limited.
- OECD, 2017, *The Welsh Education Reform Journey: A rapid policy assessment*, OECD Publishing, Paris, viewed 03 January 2024, from <http://www.oecd.org/education/The-Welsh-Education-Reform-Journey.pdf>.
- Okoth, T.A., 2016, 'Challenges of implementing a top down curriculum innovation in English Language Teaching: Perspectives of form 111 English language teachers in Kenya', *Journal of Education and Practice* 7, 169–177.
- Oplatka, I., 2018, *Reforming education in developing countries: From neoliberalism to communitarianism*, Routledge. <https://doi.org/10.4324/9781351234337>
- Phasha, T., Bipath, K. & Beckmann, J., 2016, 'Teachers' experiences regarding continuous Professional Development and the Curriculum Assessment Policy Statement', *International Journal of Educational Sciences* 14(1–2), 69–78. <https://doi.org/10.31901/24566322.2016/14.1-2.09>
- Podgornik, V. & Vogrinc, J., 2017, 'The role of head professional identity: Dilemmas and metaphors of a first-year chemistry teacher', *Science Education* 82(3), 293–310. [https://doi.org/10.1002/\(SICI\)1098-237X\(199806\)82:3<293::AID-SCE1>3.0.CO;2-7](https://doi.org/10.1002/(SICI)1098-237X(199806)82:3<293::AID-SCE1>3.0.CO;2-7)
- Priestley, M.R., 2017, 'Secondary science teachers as curriculum makers: Mapping and designing Scotland's new curriculum for excellence', *Journal of Research in Science Teaching* 54(3), 324–349. <https://doi.org/10.1002/tea.21346>
- Pyhältö, K., Pietarinen, J. & Soini, T., 2018, 'Dynamic and shared sense-making in large-scale curriculum reform in school districts', *The Curriculum Journal* 29(2), 181–200. <https://doi.org/10.1080/09585176.2018.1447306>
- Rambuda, M.C., 2019, 'Implementing the curriculum and assessment policy statement: A case study of the Vhembe West District, South Africa', *Journal of International Education and Practice* 2(2 and 3), 45–57. <https://doi.org/10.30564/jiep.v2i2and3.1006>
- Ravitch, S.M. & Riggan, M., 2017, *Reason & rigor: How conceptual frameworks guide research (2nd ed.)*, SAGE Publications, Inc., Thousand Oaks, CA.
- Roblin, N., Schunn, C. & McKenney, S., 2017, 'What are critical features of science curriculum materials that impact student and teacher outcomes?' *Science Education* 102(2), 1–23.
- Romanowski, M.H. & Du, X., 2020, 'Education transferring and decentralized reforms: Qatar's decentralized and recentralized education system', *Prospects* 52, 285–298.
- Rudhumbu, N., 2015, 'Enablers of and barriers to successful curriculum in higher education: A literature review', *International Journal of Education Learning and Development* 3(1), 12–26.
- Sabella, T. & Crossouard, B., 2018, 'Jordan's primary curriculum and its propensity for student-centred teaching and learning', *Compare: A Journal of Comparative and International Education* 48(5), 717–732.
- Sayed, Y., Badroodien, A., Omar, Y., Ndabaga, E., Novelli, M., Durrani, N., et al., 2018, *The Role of Teachers in Peacebuilding and Social Cohesion in Rwanda and South Africa*, Research Report, University of Sussex, UK.
- Schollar, E., 2018, 'Curriculum management, improving learner performance and the rise of multi grade classes: A tangled web of challenges to the design, operation and evaluation of educational development programmes in South Africa', in P. Christie & M. Monyokolo (eds.), *Learning about sustainable change in education in South Africa: The Jika iMfundo campaign 2015 2017*, pp. 99–123, Saide, Johannesburg.
- Taguma, M. & Barrera, M.F., 2019, *Draft change management: Facilitating and hindering factors of curriculum implementation*, viewed 23 March 2024, from [https://www.oecd.org/education/2030-project/contact/Change\\_management\\_for\\_curriculum\\_implementation\\_Facilitating\\_and\\_hindering\\_factors\\_of\\_curriculum\\_implementation.pdf](https://www.oecd.org/education/2030-project/contact/Change_management_for_curriculum_implementation_Facilitating_and_hindering_factors_of_curriculum_implementation.pdf).
- Taole, M.J., 2015, 'Towards a meaningful curriculum implementation in South African schools: senior phase teachers' experiences', *Africa Education Review* 12(2), 266–279.
- Tirri, K., Eisenschmidt, E., Poom-Valickis, K. & Kuusisto, E., 2021, 'Current challenges in school leadership in Estonia and Finland: A multiple-case study among exemplary principals', *Education Research International* 2021, 8855927. <https://doi.org/10.1155/2021/8855927>

- Ulferts, H., 2019, *The relevance of general pedagogical knowledge for successful teaching: Systematic review and meta-analysis of the international evidence from primary to tertiary education*, OECD Education Working Papers, No. 212, OECD Publishing, Paris.
- University of California, Los Angeles, 2020, *A practical introduction to factor analysis: Exploratory factor analysis*, Statistical Consulting Group, viewed 10 September 2020, from <https://stats.idre.ucla.edu/sas/modules/sas-learning-moduleintroduction-to-the-features-of-sas/>.
- Van der Berg, S., Gustafsson, M. & Burger, C., 2020, 'School teacher supply and demand in South Africa in 2019 and beyond', Department of Higher Education and Training, Pretoria.
- Wallace, C. & Priestley, M., 2017, 'Secondary science teachers as curriculum makers: Mapping and designing Scotland's new Curriculum for Excellence', *Journal of Research in Science Teaching* 54(3), 234–349.
- Wang, Q. & Zhang, H., 2014, 'Promoting teacher autonomy through university-school collaborative action research', *Language Teaching Research* 18(2), 222–241. <https://doi.org/10.1177%2F1362168813505942>
- Wedell, M. & Grassick, L., 2018, 'Living with curriculum change: An overview', in M. Wedell & L. Grassick (eds.), *International perspectives on teachers living with curriculum change*, pp. 1–14, Palgrave, Basingstoke.
- West, J. & Meier, C., 2020, 'Overcrowded classrooms – The Achilles heel of South African education?', *South African Journal of Childhood Education* 10(1), a617. <https://doi.org/10.4102/sajce.v10i1.617>
- West, L., 2014, 'Transformative learning and the form that transforms: Towards a psychosocial theory of recognition using auto/biographical narrative research', *Journal of Transformative Education* 12(2), 164–179. <https://doi.org/10.1177/1541344614536054>
- Wright, C.F., 2017, 'Teacher stress and curriculum reform: An illustrative example with the growth mindset movement', unpublished master's thesis, University of Texas.
- Wu, B. & Chen, X., 2017, 'Continuance intention to use MOOCs: Integrating the technology acceptance model (TAM) and task technology fit (TTF) model', *Computers in Human Behavior* 67, 221–232. <https://doi.org/10.1016/j.chb.2016.10.028>
- Yuen, S., Boulton, H. & Byrom, T., 2018, 'School-based curriculum development as reflective practice: A case study in Hong Kong', *Curriculum Perspectives* 38(1), 15–25. <https://doi.org/10.1007/s41297-017-0032-8>
- Zigurs, I. & Khazanchi, D., 2008, 'Form profiles to patterns: a new view of task technology fit', *Inf. Syst. Manag* 25, 8–13. <https://doi.org/10.1080/10580530701777107>