Economics Teachers' Content Knowledge and Teaching Strategies Used to Teach Economics in Selected South African Schools

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Abstract

Economics is a subject offered at the Further Education and Training (FET) section in South Africa, the subject has recorded performance that is not impressive, and the low enrolment and statistics of pass rate are of major concern. Therefore this paper explores the teachers' content knowledge and strategies used to teach Economics in some selected schools in South Africa. The paper adopts a qualitative approach to phenomenological research design. Purposive sampling techniques were used to select 12 teachers from six schools, two teachers from each school in Buffalo City Municipality in East London, South Africa. A semi-structured interview was used to elicit information from the respondents. The findings among others revealed that Economics is very useful to be a better citizen and to make rational life decisions, the use of the right pedagogy can improve performance, and the content knowledge with adequate on-the-job training will be a match in delivering the content of the subject. It is concluded that a low level of understanding of the basic Economics concepts could be attributed, to less professional development training of Economics teachers in content knowledge and pedagogy. It is recommended among others that the Economics teacher have to strike a balance between theory and practice. Teachers should be innovative and improvise by using technological skills, they should move towards the use of technology as a tool to enable learners to become creative, empathetic and high-order thinkers in this digital world.

Keywords: content knowledge, economics, pedagogy, professional development technology

1. Introduction

In post-apartheid South Africa, the government and education officials attempted to address and redress the educational inequalities of the past education system. However, to date education system in South Africa remains a challenging and argumentative subject to many. Amnesty International South Africa (2020) revealed that the South African education system, is marked by disintegrating infrastructure, overloaded classrooms, and relatively poor educational outcomes and this perpetuates inequality and thus fails many of its children (learners). Early in 2021, in a press release, Amnesty International announced that the COVID-19 pandemic has plunged South Africa into further crisis, exposing the country's education system continues to be shaped by the apartheid legacy declaring that "a child's experience of education in South Africa is still dependent on where they are born how wealthy they are, and the colour of their skin".

The fact of the matter is that the world we are living in is exposed to multifarious economic challenges. Teaching Economics in South Africa is a viable solution to addressing these challenges. Because Economics aims at educating people (learners) on how to competently and efficiently utilize scarce public and private resources to satisfy their needs. Apart from this fact, it has to teach our learners how to manage their monies and resources, (Ojo & Jeannin, 2016). In this regard, van Wyk (2015) insists that teaching economics in schools should create responsible citizens and effective decision-makers. However, it is an important subject that many of our nation's schools tend to overlook, (Vandeyar & Swart, 2015). The importance of Economics in education goes far beyond the goal of improving an understanding of the basic principles of supply and demand, and how the economy works, (van Wyk, 2015), creating responsible citizens who will become effective decision-makers. This emphasizes the prominence of Economics pedagogy in teaching and learning Economics in schools on improving an understanding of Economics in schools and also how can new knowledge be generated to expose learners to real-life learning environments and experiences.

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Economics education is a significant part of the curriculum of South Africa's schools. Both the senior phase (grades 7-9) and the further education and training (FET) phase (grades 10–12) offer economics as a topic. Students might choose to concentrate on economics throughout the FET phase by selecting it as one of their elective subjects. The economics curriculum in South Africa aims to improve students' comprehension of economic ideas and problems as well as their capacity to apply economic ideas to practical circumstances. Supply and demand, market structures, economic systems, inflation, unemployment, global trade, and economic growth are a few of the major subjects addressed in the economics curriculum. To help students apply economic principles to real-world problems, South African economics education may also involve field trips, case studies, and other hands-on activities in addition to classroom instruction. Additionally, there are chances for students to take part in extracurricular economics-related activities like debate teams, business clubs, and economics Olympiads (van Wyk, 2018). However, there are some obstacles to economics education in South Africa, such as a lack of qualified economics teachers, limited resources, and a curriculum that might not always accurately reflect the country's economic realities. As a result, efforts are being made to enhance economics education across the nation, including programs to hire more economists and create a more current and useful economics curriculum. For students to understand how people, businesses, and governments make decisions about resource allocation, economics education is crucial. Economics instructors should be well-versed in the theories, models, and concepts of the field. Understanding subjects like supply and demand, market dynamics, macroeconomics, microeconomics, global trade, and economic development can be included in this (Adu & Zondo, 2023).

In addition to content knowledge, effective economics teachers use a variety of teaching

Strategies to engage students and help them understand complex economic concepts. Some common teaching strategies include:

- 1) Active learning: Encouraging students to participate in activities such as debates, simulations, and case studies can help them understand economic concepts in a more hands-on way.
- 2) Differentiated instruction: Providing different learning activities and materials that cater to different learning styles can help students with diverse backgrounds and abilities understand economic concepts.
- 3) Technology integration: Using technology, such as videos, simulations, and online resources, can help students visualize and understand economic concepts more interactively.
- 4) Inquiry-based learning: Encouraging students to ask questions and investigate economic issues on their own can help them develop critical thinking skills and a deeper understanding of economics.

Effective economics teaching involves both strong content knowledge and effective teaching strategies that engage and support students' learning.

1.1 Objective of the Paper

The objective of this paper is to explore how economics teachers' content knowledge and teaching strategies used to teach Economics in selected South African schools

1.2 Research Questions

The following research questions are postulated for this paper.

- What is the importance of Economics Education in schools?
- What teaching strategies do Economics teachers use to teach Economics in schools?
- How do economics teachers use their content knowledge to teach Economics?

2. Theoretical Framework: Vygotsky Social Learning Theory

The Social Learning Theory, or Social Development Theory, of Vygotsky, is a theory of human cognitive development that emphasizes how social interactions and cultural background affect how the mind develops. Children learn through interactions with others, especially those who are more informed like parents, teachers, and classmates, according to Vygotsky. Children learn skills, attitudes, and values that are crucial for their development through these social interactions in addition to the knowledge that is taught to them.

The Zone of Proximal Development (ZPD), which describes the variety of tasks that a child can complete with the help of a more experienced person, is a crucial idea in Vygotsky's theory. The ZPD is a crucial idea because it acknowledges that children's learning goes beyond what they can achieve on their own and includes what they can do with others' assistance. Scaffolding, which is the assistance given by a more experienced individual to help a kid learn a new skill or

concept, is another crucial idea in Vygotsky's theory. Scaffolding entails giving the child just the right amount of assistance to enable them to execute the work successfully while progressively lowering the quantity of assistance as the youngster gains competence.

The significance of cultural background in influencing children's development is also emphasized by Vygotsky's theory. He thought that culture gives kids the skills and tools they need to understand the world and that cultural norms and values mould kids' attitudes and behaviours. In addition to emphasizing the role of more informed people in assisting children in learning and development, Vygotsky's Social Learning Theory emphasizes the significance of social interactions and cultural context in influencing human development. The teaching and learning of economics can be influenced in several ways by Vygotsky's Social Learning Theory. Here are a few examples:

ZPD and Scaffolding: Economics contains several intricate ideas and theories that may be challenging for pupils to comprehend on their own. Economics instructors can aid students in learning these ideas more successfully by recognizing the ZPD and offering the proper scaffolding. To help pupils learn difficult economic concepts, teachers can, for instance, give examples and analogies, break complex concepts down into simpler components, and conduct supervised practice sessions.

Collaborative Learning: In Vygotsky's theory, social interactions are emphasized as crucial to learning. Teachers in economics classes can motivate their students to collaborate on tasks and assignments, participate in class discussions and debates, and take part in peer-to-peer teaching and learning. Through active discussion and collaboration, students can learn from one another's strengths and weaknesses while also developing a deeper understanding of economic concepts.

Cultural Context: The significance of cultural background in influencing children's development is highlighted by Vygotsky's theory. Similarly to this, it's critical to understand the cultural context of economic concepts and theories when teaching them. Teachers can, for instance, incorporate local economic issues and laws into their courses and use examples and case studies that are pertinent to the cultural backgrounds of their students. Teachers can help students connect economic ideas to their own experiences and better comprehend their economic environment by making economics more relevant and meaningful to them. In the teaching and learning process, Vygotsky's Social Learning Theory places a strong emphasis on the value of social interactions, scaffolding, and cultural context. By incorporating these principles into economics education, teachers can help students better understand and appreciate the complex economic concepts and theories that shape their world (Adu & Olowu, 2022).

3. Literature Review

This paper reviews the following research questions.

3.1 Importance of Economics Education in Schools

There are a lot of importance accrued to economics education, a few of them are the following:

Economic education promotes economic literacy, which is crucial for people to comprehend their financial condition, make wise decisions, and successfully engage in the economy in today's complicated and linked world. Students can learn about important economic ideas like supply and demand, inflation, and economic growth through economics education and have a greater grasp of how the economy functions (Joao et al., 2018). Students who study economics may also be prepared for a variety of careers in business, finance, government, and other areas. Students can acquire the skills and information necessary to be successful in the labour market of today by learning about economic principles like market systems, trade, and globalization.

Students who study economics can also become more informed and active citizens. Students can more effectively participate in public debates and decision-making by studying economic issues and policies because they will have a greater understanding of how government policies impact the economy and society. By instructing students in data analysis, argument evaluation, and making well-informed decisions, economics education can also aid students in the development of critical thinking abilities. These abilities are useful not only in the field of economics but also in fields like politics, science, and social issues. Economics instruction can aid pupils in developing stronger financial decision-making skills. Students can acquire the skills and knowledge necessary to effectively manage their own money and make plans by learning about budgeting, saving, investing, and other financial topics. Education in economics is crucial for both individuals and society at large. Economics education may help students get ready for a variety of vocations, civic engagement, and personal financial management while also fostering critical thinking and economic literacy by educating them on important economic concepts and concerns. (Adu & Zondo, 2023).

3.2 Teaching Strategies Used for Teaching Economics

Various teaching strategies can be used to teach Economics effectively. Here are some examples:

Lecture-based teaching: Lecturing is one of the most often utilized teaching methods in economics. With this method, the teacher organizes and structures the lesson's content for the students. Delivering a lot of material in a short amount of time is possible with lecture-based teaching.

Interactive teaching: Actively involving students in the learning process is a key component of interactive teaching methodologies. Group discussions, debates, case studies, and role-playing are a few examples of interactive techniques. These exercises encourage teamwork and collaboration among students while also giving them the chance to apply their learning to actual situations. They also aid in the development of critical thinking skills (Senthamarai, 2018).

Visual aids and technology: Students can better comprehend and retain difficult economic topics by using visual aids like charts, graphs, and diagrams. To increase student involvement and comprehension, technology can also be used effectively. Examples of this include PowerPoint presentations, movies, and simulations (Adu, 2019).

Problem-based learning: In problem-based learning, students are presented with actual economic issues and obstacles and encouraged to work together to find solutions. Students who use this method can improve their ability to think critically, solve problems, and apply economic principles to practical circumstances.

Inquiry-based learning: Encourage students to look into economic concepts on their own by using inquiry-based learning. This strategy encourages critical thinking, research abilities, and a greater comprehension of economic ideas. The selection of a teaching approach will be influenced by the learning objectives, the needs and interests of the students, and the preferences and skills of the teacher. Teachers can create a dynamic and engaging learning environment that aids students in acquiring the knowledge, abilities, and attitudes necessary for success in economics by utilizing a range of teaching techniques (Adu & Galloway, 2015).

3.3 The Use of Content Knowledge to Teach Economics

The use of subject-matter expertise is crucial while teaching economics. To effectively communicate important concepts and ideas to your students, you must possess a solid understanding of economics as a discipline. To ensure that simple language is used during the teaching of economics and to help provide examples in illustrative points, content knowledge in teaching economics uses the understanding of economics to provide clear explanations of economic concepts and theories.

Real-world examples can be used while teaching economics using content knowledge. Inflation, unemployment, and international commerce are a few examples of real-world problems that are strongly tied to the study of economics. The student's understanding of the applicability of the principles the teacher is teaching will be aided by the use of real-world examples. The student's ability to think critically about economic issues is encouraged by the subject knowledge. Case studies, data analysis, and other techniques will be available to the teacher to aid in the development of the student's analytical abilities (Adu & Zondo, 2022).

The ability to understand the subject matter will also allow economics teachers to use interactive teaching techniques to involve their students in the learning process, such as role-playing, debates, and group discussions. This method will make it easier for them to relate to the material and remember it. Because economics is a subject that is constantly changing, teacher needs to stay up to date on the most recent trends to enhance their teaching and keep the students informed of the most recent advancements in the field. By giving clear explanations, using actual examples, stimulating critical thinking, utilizing interactive teaching techniques, and staying up to speed with the most recent research, topic knowledge is crucial in teaching economics (Adu, 2015).

3.4 Importance of Content Knowledge in the Teaching of Economics

The importance of subject-matter competence in teaching economics, for instance, has been studied. The requirement for subject-matter experience while teaching economics is shown by a study by Adu and Zondo (2023), which found that teachers' subject-matter competence was a major predictor of their students' economics learning outcomes. Teachers were better able to explain economic ideas to their students when they had a deeper understanding of the field. Using real-world examples and applications in economics training has been shown to increase students' learning and recall of the subject matter, according to a study by Adu and Zondo (2022). Teachers can assist students understand how crucial economics is to their daily lives by connecting economic ideas to current problems and situations.

According to a study by De Araujo et al. (2019), interactive teaching methods like group discussions, debates, and simulations can improve student engagement and learning outcomes in economics. This is why content knowledge is important when teaching economics because it leads to these methods. Teachers can aid students in developing their

critical thinking and problem-solving abilities by actively integrating them into the learning process.

For teachers to improve their subject area competence, professional development is essential. Following a study by Adu (2019), teacher professional development can improve teachers' comprehension of economics topics and their ability to successfully teach the subject. Continuous training and assistance for instructors can help them stay up to date on the most recent economics teaching research and best practices. Content expertise is necessary to decrease students' misunderstandings. Adu (2015) found that teachers' subject-matter knowledge is crucial for addressing students' economic mistakes. Teachers can help students understand economic topics more accurately by identifying and dispelling common myths.

4. Methodology

The methodology section describes the process of research approach, design, data collection instrument and how the data were analysed. The paper employed the interpretivism paradigm that is based on the assumption that reality is subjective, socially constructed and multiple. Under this assumption, reality differs according to individual differences and social perspectives. The paper adopted a qualitative research approach of phenomenological research design to elicit information from the teacher about the content knowledge and teaching strategies used to teach Economics in selected South African schools. A purposive sampling technique was used to select 12 educators in six selected schools in Buffalo City Municipality in East London, South Africa. There is a minimum of two educators in schools teaching economics at Further and Education Training (FET) levels. The schools selected are located in both urban and rural areas of the municipality, the educators selected are those teaching at Grade 10 and 11 levels because Grade 12 is the final examination class and the educators are very busy and could not attend interviews. A semi-structured interview was used to collect information from the respondents. Trustworthiness of confirmability, credibility and transferability was used to measure the validity of the instrument. The data were analysed using a thematic approach of coding, sorting, pattern, categorisation and transcription.

5. Data Analysis and Discussion

The study reported Economics teachers' content knowledge and teaching strategies used to teach Economics in selected South African schools. The participants were coded and sorted as follows:

Table 1. Participants Coding

Coding/Sorting	Participants	Coding/Sorting	Participants
Tr1S1	Teacher 1 in School 1	Tr1S4	Teacher 1 in School 4
Tr2S1	Teacher 2 in School 1	Tr2S4	Teacher 2 in School 4
Tr1S2	Teacher 1 in School 2	Tr1S5	Teacher 1 in School 5
Tr2S2	Teacher 2 in School 2	Tr2S5	Teacher 2 in School 5
Tr1S3	Teacher 1 in School 3	Tr1S6	Teacher 1 in School 6
Tr2S3	Teacher 2 in School 3	Tr2S6	Teacher 2 in School 6

The following themes were raised and analysed based on the research questions:

- Importance of Economics Education in Schools.
- Teaching strategies Economics teachers used to teach Economics in schools.
- The Use of content knowledge to Teach Economics.

Theme 1: Importance of Economics Education in Schools

Regarding the significance of economics education in schools, the economics teachers were questioned. No country can achieve sustainable economic development without significant investments in human capital or human training, and these are required through the effective knowledge of Economics Education. The participants revealed that Economics education plays a significant role in preserving economic and social progress and enhancing income distribution. One participant stated:

With the understanding of Economics, the learners are equipped with the necessary skills, values and right attitude that will make them survive in any complex economic society

Another participant indicated that

The contents of Economics allow learners to become responsible citizens and be able to make effective decisions, learners will understand the world around them apart from understanding the businesses, market and government activities

One of the participants has this to say

The teaching of Economics enables the learner or recipient to understand and get exposed to the real-life situation and have the knowledge of what goes on in their environments

The above perceptions of teachers are in line with Van Wyk (2018) which alluded to the fact that many of the schools in our country choose to ignore economic education, even though it is a very important subject. The purpose of economic education goes well beyond enhancing knowledge of the fundamentals of supply and demand and how the economy functions. It also involves creating new knowledge by exposing students to real-world learning situations and experiences. Similarly, UNESCO (2019) attest that teaching Economics is very important in secondary schools in South Africa as it helps in equipping learners with knowledge, skills, values, and attitudes to enable them to participate, contribute, adapt, and survive in a complex economic society.

Theme 2: Teaching strategies Economics teachers used to teach Economics in schools

All the respondents believe that the pedagogy used by the teachers matters a lot if the goal of teaching Economics Education is to be fulfilled. However, some of the participants have the following to say:

In this century and with the advent of COVID-19, I switched completely to the use of technology with ICT facilities to teach Economics.

Another participant is of the view that:

I use different learner-centred and traditional approaches during my teaching. The type of topic I am teaching determines the interplay of the approaches I use.

Similarly to the above view, the following participant said:

The learner outcome determines the pedagogy I use in class, and the learners' entry behaviour is another factor that determines my teaching approach.

The views of using a traditional approach from one of the participants are contrary to what Chazan (2022) who reported that using traditional approaches like books; chalkboard notes, etc. are barbaric during the teaching of Economics. Students' passive learning involves only listening to professors and taking notes, which is their only modality of instruction. This teaching approach has been proved by many to be ineffective in teaching Economics in schools because when learners take a passive role in learning they lose attention in a few minutes (Chazan, 2022).

In a similar vail, Adu and Zondo (2022) concur that technology tools like computers and other multimedia technologies have assisted teachers in abandoning the conventional method and adopting several cutting-edge strategies to improve teaching and learning.

Theme 3: The Use of content knowledge to Teach Economics

The majority of the respondents agreed that the discipline background of the teacher and the constant Continue Professional Teacher Development (CPTD) can promote the teaching of Economics. However, few of them said the following:

I have a qualification in Economics Education which assists me with adequate content knowledge of the subject and allow me to drive home the objective of every lesson that I teach and achieve the desired learning outcome.

Another participant said:

I use the contents of Economics to teach my learners, the curriculum that I am using gives a clear guide on what needs to be taught and how to teach it.

One participant said that;

Understanding the content enough is not sufficient but being trained and being professional can assist with the proper dissemination and delivery of the subject matter.

The South African study conducted by Ogbonnaya et al. (2020) indicated that if the country is to enhance the teaching of Economics in schools, Economics teachers have to undergo training in pedagogy to prepare critical learners to reflect on Economics policies globally. However, their study further revealed that having teachers with a strong discipline background does not mean that they have the skills to teach Economics effectively. Similarly, Mji and

Idika's (2018) study indicated that having teachers with good discipline/content knowledge is not enough but teachers must know the 'method/pedagogy' of how best to teach and assess learners.

6. Conclusion and Recommendations

There is a great concern for Economics in South African secondary schools about improving learners' understanding of the topic of the subject, teachers' pedagogy and content knowledge, since the majority of secondary school students do not comprehend even the most fundamental economics concepts, such as how supply and demand affect consumer prices in the topic market dynamics. These authors argued that learners' low level of understanding of the basic Economics concepts could be attributed, to less professional development training of Economics teachers in content knowledge and pedagogy. the ICT integration in teaching Economics endows both teachers and learners. As such there is a need for Economics teachers to move towards using technology as a tool to enable learners to become creative, empathetic, higher-order thinkers so that they fit in the digital world we find ourselves in. So far, ICT is reported by many to be the tool for changing teaching and learning pedagogies from teacher-oriented to learner-oriented pedagogies. It is recommended among others that the Economics teacher have to strike a balance between theory and practice. Teachers should be innovative and improvise by using technological skills, they should move towards the use of technology as a tool to enable learners to become creative, empathetic and high-order thinkers in this digital world.

References

- Adu, E. O., & Zondo, S. S. (2023). Exploring teachers' perspectives on the relevance of teaching economics management sciences in schools. *Universal Journal of Education Research*, 11(3). 57-66. https://doi.org/10.13189/ujer:2023.110303
- Adu, E. O., & Zondo, S. S. (2023). Perceptions of educators on ICT integration into the teaching and learning of economics. *EUREKA*, *Social and Humanities*, (1), 61-71. https://doi.org/10.21303/2504-5571.2023.002530
- Adu, E. O., & Zondo, S. S. (2022). Chronicling teacher's experiences in the teaching of economics in the Covid-19 Era. *International Journal of Research in Business & Social Science (IJRBS)*, 11(8), 290-297. https://doi.org/10.20525/ijrbs.v11i8.2078
- Adu, E. O. (2015). The correlation of teacher effectiveness variables and students' achievement in economics. *International Journal of Education Sciences (IJES)*, 11(3), 270-276. https://doi.org/10.31901/24566322.2015/11.03.05
- Adu, E. O. (2015). Organizational climate variables as correlates of students' achievement in economics. *Journal of Social Studies* (JSS), 45(1), 16-21. https://doi.org/10.13140/RG.2.1.1801.2005
- Adu, E. O., & Galloway, G. (2015). Information and communication technologies (ICT) and teacher education preparation in South Africa: Implications for 21st Century Classroom-Based Practice. *Journal of Communications* (JC), 6(2), 242-247. https://doi.org/10.1080/0976691X.2015.11884868
- Adu, E. O. (2019). Between teachers and cheaters: critical perspectives on continuing professional teacher development towards education 2030 agenda in Africa. The text of the 25th inaugural professorial lecture of the University of Fort Hare, South Africa 2019).
- Amnesty International South Africa, (2020, 11 February). South Africa: Broken and unequal education perpetuating poverty and inequality. Retrieved from https://www.amnesty.org
- Chazan, B. (2022). What is "Education"? In Book: *Principles and Pedagogies in Jewish Education* (pp. 14-21). https://doi.org/10.1007/978.3.030.83925.3
- Joao, C. G., Joao, C. L., & Rita, G. C. (2016). Economics education: literacy or mind framing? Evidence from a survey on the social building of trust in Portugal. *Analise Social*, 51(220), 516-542. Retrieved from https://www.researchgate.net/publication/309668527_Economics_education_Literacy_or_mind_framing_Evidence_from_a_survey_on_the_social_building_of_trust_in_Portugal
- Mji, I. A., & Idika, E. O. (2018). Utilization of ICT in teaching and learning of economics in secondary schools in NSUKKA Education Zone. *International Journal of Economics Education Research*, *I*(1), 43-57. Retrieved from https://www.researchgate.net/publication/333024353_utilization_of_ict_in_teaching_and_learning_of_economics in secondary schools in nsukka education zone
- Ogbonnaya, I. C., Mji, A., Mafa-Theledi, O. N., & Ngulube, B. (2020). Economics teachers' use of topic-specific

- pedagogical content knowledge in teaching market dynamics. *Problems of Education in the 21st Century*, 78(3), 371-393. https://doi.org/10.33225/pec/20.78.371
- Ojo, E., & Jeannin, L. (2016). The way economics is taught needs an overhaul: a South African case study Wits University.

 Retrieved from https://www.wits.ac.za/news/latest-news/in-their-own-words/2016/2016-12/the-way-economics-is-taught-needs -an-overhaul-a-south-african-case-study.html
- Senthamarai, S. (2018) Interactive teaching strategies. *Journal of Applied and Advanced Research*, 3(SI), 36. https://doi.org/10.21839/jaar.2018.v3iS1.166
- UNESCO (2019). Empowering students for just societies: a handbook for secondary school teachers. UNESCO. ISBN 978-92-3-100340-0.
- van Wyk, M. (2015). Teaching economics. In: James D. Wright (editor-in-chief), International *Encyclopaedia of the Social & Behavioural Sciences* (2nd ed.), 24. Oxford: Elsevier, 83-88. Retrieved from https://www.researchgate.net/publication/275209145
- van Wyk, M. M. (2018). Economics student teachers' views on the usefulness of a flipped classroom pedagogical approach for an open distance eLearning environment. *The International Journal of Information and Learning Technology*, 35(4), 255-265. https://doi.org/10.1108/IJILT-07-2017-0068
- Vandeyar, S., & Swart, J. (2016). The teacher as an agent of meaningful educational change. Educational Sciences: Theory and Practice. https://doi.org/10.12738/estp.2017.2.0314

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