

# *Research teacher in middle school: the theory and cultivation strategies*

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**Abstract:** Becoming a research teacher is an important goal for every teacher's professional development. This paper firstly introduces the definition of research teacher, then discusses the meaning and development direction of being a research teacher from a theoretical level, and finally discusses effective strategies for becoming a research teacher from a practical level, including the teacher's perspective and the school's perspective.

## **1. Introduction**

The General High School English Curriculum Standards (2017 Edition) put forward the general goal of "developing students' core literacy in English and cultivating socialist builders and successors with Chinese sentiment, international vision and cross-cultural communication skills", which has raised new requirements and challenges for English teachers." "Teachers become researchers" is no longer a slogan, but a realistic need for teachers' survival and a necessary path for their professional development in the context of the new curriculum. Stenhouse, a British curriculum expert, proposed the concept of "Teacher as Researcher", pointing out that it is not enough for professors and researchers to study teacher development because they are not numerous enough and cannot reach every teacher extensively<sup>[5]</sup>. This requires teachers to grow up as researchers, analyze and reflect on their own teaching, and achieve self-improvement. As quality education advances, curriculum reform deepens, and educational information technology develops, frontline English teachers need to develop a new concept of "teacher as researcher". This paper discusses the connotation and meaning of research teacher from a theoretical perspective. It also discusses effective strategies for becoming research teacher from a practical perspective, and encourages and supports more English teachers to become research English teachers.

## **2. The definition of research teacher**

A research teacher is a teacher who has deep theoretical knowledge, rich expertise, and certain research abilities, who constantly uses advanced educational ideas and theories to guide practice, and who always carries a sensitive sense of research to consciously identify problems, analyze them, solve them, reflect on them, and be innovative in educational practice.

The "research teacher" was first proposed by Stenhouse in 1975, who argued that the ideal educational science should treat the classroom as a laboratory and the teacher as a researcher<sup>[5]</sup>. Only through an objective and systematic examination of their own and others' teaching practices in a

research setting can teachers better understand classroom teaching and even improve educational practice. Research teachers are those teachers who have a diverse knowledge structure and skilled teaching skills, who are aware of and capable of scientific research, who are willing to explore the laws of education and educational methods in educational practice, and who can consciously apply advanced educational ideas and methods to guide practice, improve teaching effectiveness, and enhance their professionalism.

As the name implies, the focus of a research teacher is naturally on “research”. The famous higher educator Cai Yuanpei and philosopher Karl Theodor Jaspers both advocated that research teachers should possess the following qualities: unlimited loyalty and love for education, broad intellectual horizons and advanced theoretical training, academic innovation, and unity between research and teaching<sup>[9]</sup>. Based on this, the core attributes of a research teacher are: deep theoretical knowledge, rich professional knowledge and strong research ability, constantly using advanced educational ideas and theories to guide practice, always with a sensitive research consciousness to consciously identify problems, analyze them and solve them in educational practice, and constantly reflect on them in teaching activities. At the same time, foreign scholars have proposed different strategies to support the view of “research teachers”. In addition to Stenhouse’s “teacher as researcher”, John Elliott, a leading contemporary British educator, proposed the “teacher as action researcher” strategy based on “action research”, and scholars such as Stephen Kemmis proposed the “teacher as emancipatory action researcher” strategy. These strategies provide a basis for the “teacher as action researcher” strategy. These strategies provide direct support for the idea of “teachers as researchers”, advocating that teachers become curriculum developers and encouraging them to reflect on, analyze, and critique teaching practices.

In recent years, some scholars have started to try to construct a theoretical framework for foreign language education research in China, and some scholars have begun to pay attention to the research participation of pre-service foreign language teachers<sup>[1]</sup> (e.g., teacher trainees or M.Ed. students) and their influence mechanisms. This has, to some extent, made possible a research dialogue between university and secondary English teachers. Although some researchers (e.g., Gu & Han, 2018) have begun to explore the developmental processes of teacher researchers, no substantive studies have yet delved into the specific dimensions of teacher researchers’ growth, such as their emotions and identities<sup>[7]</sup>. The prior literatures have been beneficial in understanding the concept of research teachers and how they are developed, but there are three limitations. First, there are few empirical studies, most of which have used a discursive approach to explore the connotations and characteristics of research teachers or have constructed research teacher preparation models, but lack empirical data; second, there is a lack of in-depth descriptions of research English teachers’ growth processes; and third, existing research lacks theoretical guidance for foreign language teacher development. These limitations are not conducive to understanding and guiding the development of research-based English teachers in authentic educational settings.

### **3. The meaning of becoming a research teacher**

There are many benefits to becoming a research teacher. First, being a research teacher meets the requirements of the new era and the new curriculum for teachers’ professional development. The new national curriculum reform places emphasis on promoting the professional development of primary and secondary school teachers and encourages teachers to engage in reflective teaching and grow as research teachers. In the current context of deepening educational reform, primary and secondary school English teachers should not be limited to being objects of research, but should actively develop as educational researchers, insist on solving classroom teaching problems as their value orientation, conduct research in their specific educational field, deepen their teaching understanding, optimize

their practice, and ultimately improve students' academic achievement and their own professional growth<sup>[12]</sup>(Zhuang & Qi, 2015). Frontline teachers who understand these basic requirements and strive to become research teachers are a powerful response to the new era and the new curriculum standards.

Second, becoming a research-based teacher can alleviate teacher burnout and enhance teachers' professional well-being<sup>[2]</sup>(Atay, 2005). Suhomlisky said that if you want teachers' work to bring them pleasure and keep daily lessons from becoming a monotonous obligation, then you should guide every teacher down the happy path of engaging in research. When teaching itself does not allow teachers to grow, they need new motivation to find new spaces for growth, and teaching research can show teachers a whole new field. In this process, teachers enjoy the joy of being rejuvenated by the research process itself, which can effectively alleviate burnout and enhance professional well-being.

Finally, becoming a research-based teacher can help improve student learning and develop core literacy. The overall trend of English teacher development is for teachers to become "researcher", and improving teachers' research skills has positive implications for improving classroom practices and helping students grow<sup>[11]</sup> (Wang & Hu, 2014). To become a researcher means that teachers should be in the teaching situation with a researcher's mindset, examine and analyze various problems in teaching theory and practice with a researcher's perspective, reflect on their own teaching behaviors, investigate the problems that arise, summarize the accumulated experience, and form a regular recognition. The teacher becomes a researcher and can make teaching and learning more effective. By becoming a researcher, teachers are able to teach with professionalism and humanistic concern, thus promoting the development of students' core literacy.

#### **4. The construction of research teachers' competencies framework**

On the basis of sorting out previous studies, Gu (2017) refined a framework of secondary school English teachers' research competencies, including problem awareness, the ability to acquire professional knowledge, logical argument, reflection, problem solving, and the ability to use research methods<sup>[8]</sup>. Problem awareness refers to teachers' ability to propose new problems and new possibilities in response to teaching difficulties or strengths, and to think about old problems from new perspectives; the ability to acquire professional knowledge refers to teachers' ability to improve their subject knowledge and strategies; the ability to argue logically refers to teachers' ability to reason logically and to use various knowledge, data, and literature to argue their views; the ability to reflect refers to teachers' ability to Reflection refers to teachers' ability to think about problems in teaching and seek solutions through planning, and finally to improve their practice and self-development; problem-solving ability refers to teachers' ability to use various resources to effectively solve practical problems in teaching; research method application ability refers to teachers' understanding of relevant methods and tools for classroom teaching research, such as action research, narrative research and other specific research methods, as well as the use of tools to analyze questionnaire data. The ability to use research methods refers to teachers' understanding of the use of specific research methods and tools such as action research, narrative research, and the use of tools to analyze questionnaire data. As a result, research teachers have a framework of competencies that enables them to use the teaching environment and their own research skills to promote more effective teaching and learning, problem solving, better student learning, and their own professional development.

#### **5. Cultivation Strategies**

The author believes that strategies for developing research teachers need to be viewed from two perspectives: the teacher's perspective and the school's perspective.

From the teacher's perspective, first, teachers need to focus on problems and develop their own problem awareness. The ability to identify and attempt to solve valuable research problems is an important measure of a teacher's professionalism. Problems in teaching can often be divided into problems that teachers teach and problems that students learn. Teachers observe their own or their peers' expression and rate of speech on a language point, which is a teacher-teaching problem. Teachers observe how much or how well students learn a point, which is a student learning problem<sup>[11]</sup>(Wang & Hu, 2014). Teachers can identify problems in their teaching through classroom observations and through out-of-class summaries and reflections. Classroom observation is the basis for teachers' thinking about teaching and an important way to achieve professional development and improve teaching behavior. In addition, teachers can conduct daily observations and reflections on teaching patterns after class, such as keeping a reflective journal, interviewing students, watching classroom videos, conducting questionnaires, and analyzing test scores, to identify additional issues worth studying<sup>[10]</sup> (Liu, Gu & Han, 2019).

Second, teachers need to address the problem and propose solutions. English teachers with research skills tend not to stop at the reflection stage and they are eager to solve practical problems. Therefore, teachers can find the right framework for reflecting on the problems they find in teaching, and propose research solutions from three aspects: teaching philosophy, teaching design, and classroom implementation. For conceptual issues, teachers can read more books on teaching philosophy. If the issues are related to teaching design and classroom implementation, teachers can use some conceptual guidance as a basis to discuss and substantiate the issues through group lesson planning.

Third, teachers should continuously improve their action plans and summarize their research results. By reflecting on their actions, teachers can develop a new understanding of their actions and practices and become "reflective practitioners". In the process of implementing actions, teachers encounter a variety of problems. In the process of reflecting on their own research actions, new ideas and adjustments emerge. Common research methods can be divided into two categories: quantitative research and qualitative research. Teachers can continuously reflect on their own research programs and choose appropriate research methods to solve the problems they encounter in teaching and adjust their research programs<sup>[3]</sup> (Bharuthram, 2018).

Then, teachers need to effectively evaluate the effectiveness of implementation and take active follow-up measures. Teachers are expected to effectively evaluate the implementation of action improvement programs and take follow-up measures. In this process, teachers should take and analyze multiple samples, compare the differences between samples taken multiple times, analyze and improve their teaching process as a whole, collect and analyze data systematically, reflect on and evaluate the effectiveness of the implementation of the program, and make adjustments accordingly (Gu, Hui, Ge, 2019). Teachers can evaluate the implementation effects through student questionnaires, interviews and return visits to students, classroom observations, self-reflection, writing reflection journals, conducting teaching and research activities, and taking effective follow-up measures by reading relevant literature.

Finally, teachers need to engage in a broad and active academic communication. Teachers need to interact with colleagues and peers in various settings, such as the classroom, school, and academic circles, to identify with shared experiences, and excellent teaching cannot be described as merely technical and it stems from teachers' self-identification and self-improvement<sup>[10]</sup> (Liu, Gu & Han, 2019). In these two aspects, the search for identity includes self-identification and identification with others, which teachers can achieve through academic conferences, teaching and research activities, and sharing experiences in writing papers. Teachers' professional growth is always achieved in some academic community. If there is a lack of external support, teachers will develop a series of negative emotions, lose their professional enthusiasm, and even cause a professional identity crisis. It follows

that it is also crucial for teachers to self-identify and gain the approval of others in the process of professional development. To grow into a research-oriented teacher, one must not close oneself to one's own academic world; one must be good at communicating with others, absorbing their excellent suggestions, engaging in extensive academic exchanges, absorbing more nutrients, and firmly establishing one's own research path.

From the school side, first of all, the school should create a good research atmosphere and provide a guarantee and platform for teachers' educational research. Secondary schools at all levels can introduce a stable research funding and reward system according to their own development orientation, such as giving teachers with great contributions to research a moderate inclination in the evaluation of merits and awards, title assessment, etc.; providing financial support for teachers to consult authoritative professional journals at home and abroad; regularly inviting experts and professors to guide our teachers to do research. Secondly, schools should strengthen pre-service guidance and emphasize on-the-job training to improve secondary English teachers' research literacy. To improve secondary English teachers' research ability from the root, pre-service guidance and in-service training should complement each other. First of all, attention must be paid to cultivating the research literacy of teacher trainees or M. Ed<sup>[12]</sup> (Zhuang & Qi, 2015). On the one hand, teacher education colleges and universities should construct a teacher education curriculum system that focuses on "educational research ability". In addition to offering instrumental courses related to educational research, they can also cultivate teacher education students' problem awareness, educational investigation ability, data collection and analysis ability, and preliminary academic thesis writing ability through educational apprenticeship, internship and research. On the other hand, master students in subject teaching (English) can conduct action research in the course of course study and thesis writing in conjunction with relevant issues in teaching practice, laying the foundation for later career and professional development<sup>[4]</sup>. If pre-service teachers master the basic research methods, are familiar with the basic steps of project research, and learn the basic norms of thesis writing, it is not difficult for them to grow into "research teacher" quickly in practice after joining the profession<sup>[12]</sup> (Zhuang & Qi, 2015).

In addition, in terms of in-service teacher training, relevant institutions should increase the proportion of subject research content and training in research methods according to the real needs of front-line teachers. In addition to providing appropriate research resources and professional guidance during the training process, they should also provide post-training follow-up guidance and build a platform for frontline teachers to exchange research. Finally, schools should create academic research communities based on school-based teaching and research. School-based teaching and research can help front-line teachers enhance their awareness of problems and research, and provide a platform for collaborative development of "experienced teacher" into "research teacher". Secondary English teachers must change from a solitary state of textbook research to a collaborative community. English teachers in secondary schools can build multiple types of communities based on school-based teaching and research to improve their research capacity: First, they can set up a teaching and research community of English teachers within the school with "research experts" as the core, focusing on specific problems in the teaching practice of the subject in our school for action research<sup>[6]</sup> (Cui, 2016); Second, they can form textbook research communities between different schools in the region to share resources. The second is to form textbook research communities among different schools in the region to realize resource sharing. Finally, secondary English teachers should establish joint textbook research communities with university scholars or professional researchers. One study found that the scientific research power of universities realized the docking of teaching and scientific research in cooperation with primary and secondary school teachers, highlighting the feasibility and potential value of the interactive and win-win mechanism of scientific research as a body and teaching as a use.

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