TIMSS xalqaro baholash dasturi talablari asosida bo‘lajak o‘qituvchilarning diagnostik kompetensiyalarini shakllantirish texnologiyalari

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Annotatsiya: Ushbu maqolada bo‘lajak boshlang‘ich sinf o‘quvchilarini tayyorlash jarayonida TIMSS (Trends in International Mathematics and Science Study) xalqaro baholash dasturi talablarini integratsiya qilish masalalari tahlil qilingan. Tadqiqotda bugungi kundagi pedagogik ta’limdagi “metodik uzilish” muammosi ko‘tarilgan bo‘lib, talabalarda o‘quvchilarning kognitiv xatolarini aniqlash va ularni hayotiy mantiqiy vaziyatlar orqali bartaraf etish ko‘nikmalarini shakllantirish texnologiyalari taklif etilgan. Maqolada TIMSS kognitiv sohalari (bilish, qo‘llash, mulohaza yuritish) asosida talabalarning diagnostik kompetensiyasini rivojlantirish modeli asoslab berilgan.

Kalit so‘zlar: TIMSS, matematik kompetensiya, bo‘lajak o‘qituvchi, kognitiv sohalar, metodik uzilish, diagnostik kompetensiya, boshlang‘ich ta’lim, ta’lim texnologiyalari

Technologies for the formation of diagnostic competencies of future teachers based on the requirements of the TIMSS international assessment program

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Abstract: This article analyzes the integration of the TIMSS international assessment program requirements into the training process of future primary school teachers. The study addresses the problem of “methodological disconnect” in modern pedagogical education and proposes technologies for developing students’ skills in identifying pupils’ cognitive errors and resolving them through real-life logical situations. Based on TIMSS cognitive domains (knowing, applying, reasoning), a model for developing students’ diagnostic competence is justified.

Keywords: TIMSS, mathematical competence, future teacher, cognitive domains, methodological disconnect, diagnostic competence, primary education, educational technologies

Kirish

Bugungi global raqobatbardoshlik asrida har bir davlatning ta'lim tizimi nafaqat bilim darajasi, balki olingan bilimlarni hayotiy muammolarni hal qilishda qo'llay olish qobiliyati bilan baholanmoqda. O'zbekiston Respublikasining xalqaro baholash dasturlarida, xususan, TIMSS (Trends in International Mathematics and Science Study) tadqiqotlarida ishtirok etishi ta'lim tizimi oldiga o'quv dasturlarini tubdan isloh qilish va o'qituvchi tayyorlash sifatini yangi bosqichga ko'tarish vazifasini qo'ydi. Biroq, so'nggi yillardagi natijalar tahlili shuni ko'rsatmoqdaki, ta'lim tizimida jiddiy "metodik uzilish" mavjud: ya'ni, oliy ta'lim muassasalarida bo'lajak o'qituvchilarga berilayotgan akademik bilimlar maktab sinfxonalaridagi xalqaro baholash talablariga (mantiqiy tahlil va kontekstual topshiriqlar) to'liq mos kelmayapti. TIMSS 2023 natijalariga ko'ra, o'zbekistonlik o'quvchilar "Bilish" (Knowing) darajasida ijobiy natija ko'rsatgan bo'lsalar-da, "Mulohaza yuritish" (Reasoning) va amaliy masalalarni yechishda qiyinchiliklarga duch kelishmoqda.

Ushbu muammoning yechimi bevosita oliy pedagogik ta'limning mazmunini takomillashtirishga bog'liq. Bo'lajak o'qituvchi shunchaki matematika fanini bilishi kifoya emas, u o'quvchining mantiqiy fikrlashidagi "uzilish"larni aniqlay oladigan diagnostik kompetensiyaga ega bo'lishi lozim. Mazkur maqolada aynan talabalarni TIMSS standartlari asosida matematik kompetensiyalarini shakllantirishning innovatsion-metodik texnologiyalari va ularning amaliy ahamiyati yoritib beriladi.

Xususan, boshlang'ich ta'lim o'qituvchilarini tayyorlash jarayonini tahlil qilish natijasida quyidagi uchta fundamental muammo o'z yechimini kutayotganligi aniqlandi:

Birinchidan, "Metodik uzilish" (Methodological Disconnect) muammosi. Amaldagi oliy pedagogik ta'lim mazmuni ko'p hollarda o'quvchilarga tayyor akademik bilimlarni berishga yo'naltirilgan bo'lib, TIMSS talab qiladigan kontekstual mantiq va kognitiv moslashuvchanlik prinsiplaridan uzilib qolgan. Natijada, bo'lajak o'qituvchi murakkab matematik tushunchalarni maktab o'quvchisi tafakkuriga moslab "interpretatsiya" qilishda qiyinchilikka duch kelmoqda.

Ikkinchidan, "Instrumental yetishmovchilik" (Lack of Tools). Pedagogik oliy ta'lim muassasalarida bo'lajak o'qituvchilarga TIMSS formatidagi topshiriqlarni yaratish, ularni dars jarayoniga integratsiya qilish va hayotiy vaziyatlar bilan bog'lashning aniq metodik texnologik xaritasi taqdim etilmayapti. Bu esa o'qituvchining darsda faqat darslik bilan cheklanib qolishiga sabab bo'lmoqda.

Uchinchidan, "Diagnostik kompetensiyaning shakllanmaganligi". Ta'lim jarayonida o'quvchining xatosi shunchaki "noto'g'ri javob" sifatida baholanmoqda. TIMSS standartlari o'qituvchidan o'quvchining kognitiv jarayonini tahlil qilishni, ya'ni o'quvchi nima uchun aynan shu nuqtada mantiqiy xato qilganini aniqlash va uni individual yondashuv orqali "davolash"ni talab etadi.

Ushbu muammolarni bartaraf etish uchun oliy ta'lim tizimida bo'lajak o'qituvchilarning matematik kompetensiyalarini shakllantirish metodikasini tubdan takomillashtirish zaruriyati tug'iladi. Mazkur tadqiqotning maqsadi - yuqorida qayd etilgan fundamental muammolarni yechishga qaratilgan "Vaziyatli modellashtirish" va "Kognitiv diagnostika" texnologiyalarini ilmiy asoslash hamda amaliyotga tatbiq etish modelini ishlab chiqishdan iborat.[1]

Foydalanilgan adabiyotlar

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[1] TIMSS talablari asosida bo'lajak boshlang'ich ta'lim o'qituvchilarida matematik va tabiiy-ilmiy kompetensiyalarni shakllantirish. N.Raximov, O.Pulatov