

**ISPRING SUITE, ARTICULATE STORYLINE HAMDA LECTORA INSPIRE
DASTURLARINI KIMYO TA'LIMIDA QO'LLASH**

J.M.Sharopov

Islom Karimov nomidagi Toshkent Davlat Texnika Universiteti tayanch doktoranti

Jahongir.user@gmail.com

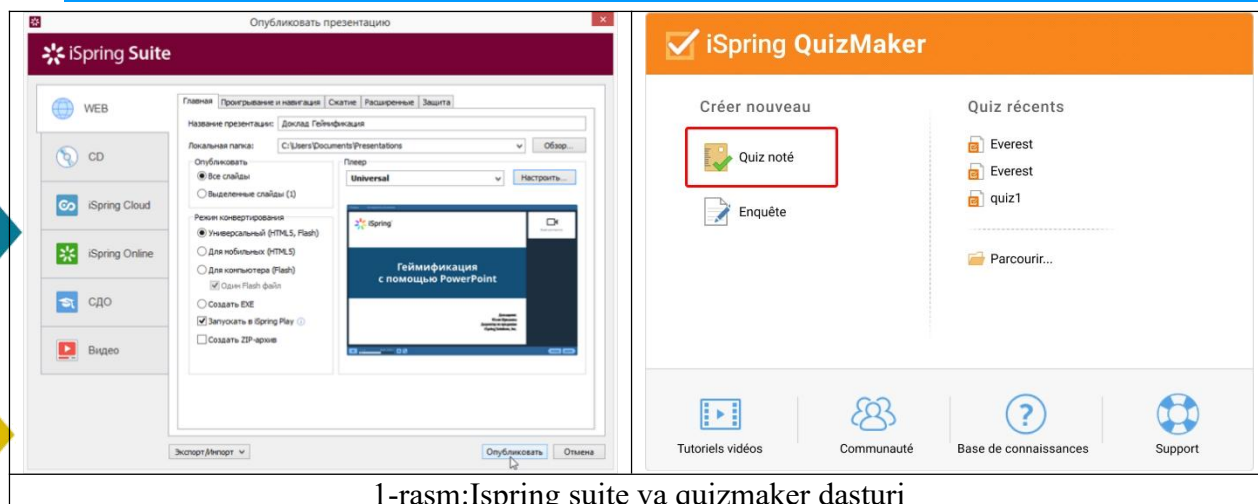
Annotatsiya: Ushbu maqolada iSpring Suite, Articulate Storyline va Lectora Inspire kabi zamonaviy e-ôqitish dasturlarining kimyo ta'limida qo'llanilishi tahlil qilinadi. Ushbu dasturlar orqali yaratilgan interaktiv ta'lim resurslari o'quvchilarning mavzuni yanada chuqurroq o'zlashtirishiga, murakkab kimyoviy tushunchalarni vizual va interaktiv vositalar orqali sodda tushunishiga yordam beradi. Maqolada ushbu dasturlar yordamida yaratilgan darslarni qanday qilib samarali tashkil etish mumkinligi, ularning afzalliklari va cheklovlari haqida ma'lumot beriladi.

Kalit so'zlar: iSpring Suite, Articulate Storyline, Lectora Inspire, kimyo ta'limi, interaktiv ta'lim, elektron darsliklar, o'quv jarayonini optimallashtirish.

Ispring Suite dasturi kimyo ta'limida samarali qo'llanilmoqda. Ushbu dastur yordamida o'qituvchilar interaktiv va multimedia bilan boyitilgan ta'lim materiallarini yaratishlari mumkin, bu esa o'quvchilarning o'rganish jarayonini yanada qiziqarli va samarali qiladi. Masalan, stoikometriya kabi murakkab mavzularni o'rgatishda Ispring Suite dasturidan foydalangan holda yaratilgan ta'lim vositalari o'quvchilarning bilimlarini oshirgan va tushunchalarni yaxshiroq o'zlashtirishlariga yordam bergan (Hanika & Guspatni, 2023). Shu bilan birga, bu dastur o'qituvchilarning axborot-kommunikatsiya texnologiyalaridan foydalanish bo'yicha malakasini ham oshiradi, bu esa ta'lim sifatini yanada yaxshilaydi (Azhar, 2021). Shuningdek, iSpring Suite 10 media vositalaridan foydalangan holda o'tilgan darslar, an'anaviy PowerPoint taqdimotlariga qaraganda, o'quvchilarning natijalarini yaxshiroq oshirishga yordam bergan (Nasution & Jasmidi, 2023).

Ispring QuizMaker dasturi kimyo ta'limida testlar va baholash vositalarini yaratishda samarali qo'llanilmoqda. Ushbu dastur o'qituvchilarga ko'p variantli testlar, to'g'ri-noto'g'ri javoblar, juftlashtirish kabi turli savollarni yaratish imkonini beradi, bu esa o'quvchilarning bilimlarini samarali baholashga yordam beradi. Masalan, stoikometriya mavzusida Ispring QuizMaker yordamida yaratilgan test vositalari o'quvchilarning mavzuni chuqurroq o'rganishlariga imkon yaratgan (Hanika & Guspatni, 2023).

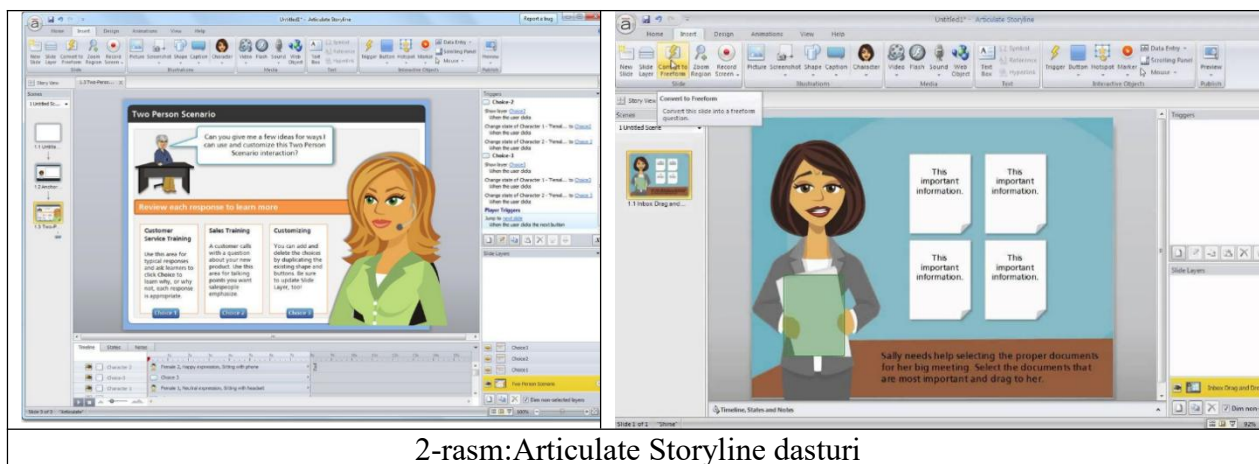
Shuningdek, Ispring QuizMaker dasturi pandemiya davrida onlayn imtihonlarni o'tkazishda ham muvaffaqiyatli qo'llanildi, bu esa o'quvchilarning bilim olish jarayonini faolroq amalga oshirishga yordam berdi (Gideon et al., 2021). Ispring QuizMaker dasturi orqali yaratilgan testlar o'quvchilar orasida yuqori darajada qiziqish uyg'otgan va ta'lim jarayonini yanada samarali qilishda katta yordam bergan (Mayuri et al., 2022).



1-rasm: Ispring suite va quizmaker dasturi

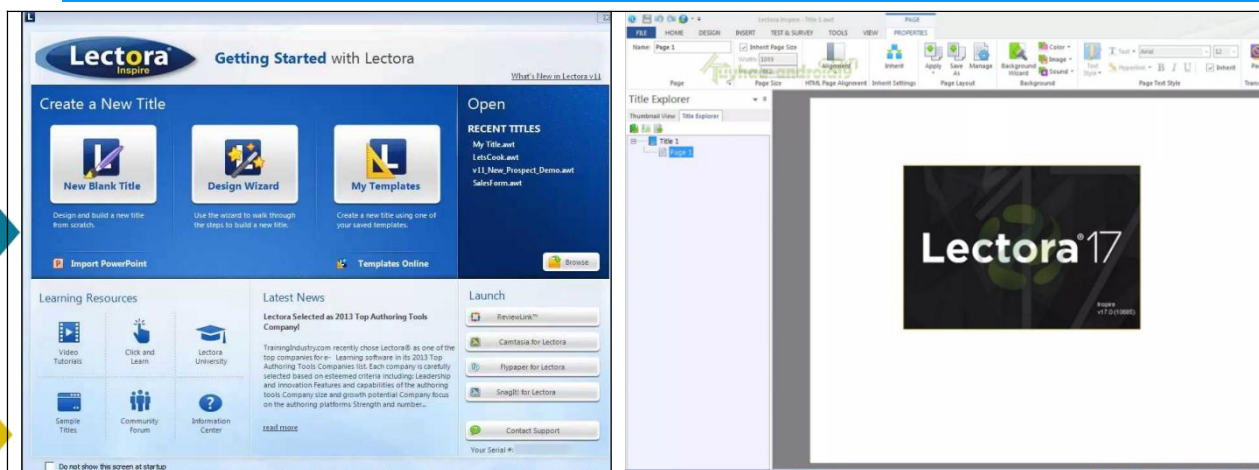
Articulate Storyline dasturi kimyo ta'limida interaktiv va multimedia o'quv materiallarini yaratishda samarali qo'llanilmoqda. Ushbu dastur yordamida yaratilgan o'quv materiallari, ayniqsa, atom tuzilishi va davriy elementlar tizimi kabi mavzularda o'quvchilarning mustaqil o'rganishlariga katta yordam beradi va ular tomonidan yuqori baholanadi (Lestarani et al., 2023).

Shuningdek, dastur uglerod va kremniy kabi anorganik kimyo materiallari bo'yicha yo'naltirilgan kashfiyot asosida interaktiv multimedia yaratish imkonini beradi, bu esa o'quvchilarning mavzularni chuqurroq o'rganishlariga yordam beradi (Afrida et al., 2021).



2-rasm: Articulate Storyline dasturi

Articulate Storyline dasturi bilan yaratilgan o'quv materiallari ta'lim jarayonini samarali va qiziqarli qilishda katta ahamiyatga ega bo'lib, o'quvchilarning bilimlarini chuqurroq tushunishlariga yordam beradi. Shu sababli, Articulate Storyline dasturi kimyo ta'limida keng qo'llanilib, o'quvchilarning ta'lim jarayoniga jalb qilinishini oshirishga xizmat qilmoqda (Herdini et al., 2021).



3-rasm: Lectora Inspire dasturi

Lectora Inspire dasturi kimyo ta'limida interaktiv va multimedia o'quv materiallarini yaratishda keng qo'llanilmoqda. Ushbu dastur yordamida yaratilgan o'quv materiallari, o'quvchilarning kimyo fanidagi mavzularni chuqurroq o'rganishlariga yordam beradi va ta'lim jarayonini yanada samarali qiladi.

Masalan, Lectora Inspire asosida yaratilgan interaktiv multimedia vositalari kimyo fanida, xususan, kislotalar va asoslar mavzularida qo'llanilib, o'quvchilarning mavzuni yaxshi tushunishlariga yordam bergan (Fajrina et al., 2018). Shuningdek, bu dastur orqali yaratilgan o'quv materiallari o'quvchilarning tushunchaviy ko'nikmalarini oshirishda sezilarli natijalarga erishilgan (Sinaga et al., 2023).

Lectora Inspire dasturi yordamida elektrolit va noelektrolit eritmalar kabi mavzularni o'rganish uchun yaratilgan interaktiv o'quv materiallari ham samarali deb topilgan va milliy ta'lim standartlariga muvofiq deb baholangan (Irfani et al., 2019). Ushbu dastur yordamida yaratilgan materiallar o'quvchilarning o'qishga bo'lgan qiziqishini oshirgan va mavzularni yanada yaxshi o'zlashtirishlariga yordam bergan (Sary & Jahro, 2022).

Shunday qilib, Lectora Inspire dasturi kimyo ta'limida interaktiv va multimedia vositalari yaratish orqali o'quvchilarning o'rganish jarayonini boyitishda va samaradorligini oshirishda muhim vosita sifatida o'z o'rnini topmoqda.

Quyida iSpring Suite, Articulate Storyline, va Lectora Inspire dasturlarining imkoniyatlari, afzalliklari, va kamchiliklari bo'yicha taqqoslash jadvali keltirilgan:

Quyida iSpring Suite, Articulate Storyline, va Lectora Inspire dasturlarining imkoniyatlari, afzalliklari, va kamchiliklari bo'yicha taqqoslash jadvali keltirilgan:

Dastur	Imkoniyatlari	Afzalliklari	Kamchiliklari
iSpring Suite	- Interaktiv slaydlar yaratish - Video darslar yaratish va tahrirlash - Test va viktorinalar yaratish - Animatsiyalar yaratish - SCORM va xAPI	- Oson foydalanish - PowerPoint bilan integratsiya - Tez tayyorlash imkoniyati - Interaktivlikni oshirish	- Dastur imkoniyatlari Articulate Storyline va Lectora Inspire ga nisbatan cheklanganroq - Murakkab animatsiyalar yaratish cheklangan

	formatlarida eksport qilish - Mobil qurilmalarga moslashtirish - Ko'plab tayyor shablonlar mavjudligi		
Articulate Storyline	- Interaktivlikni chuqur sozlash - Murakkab animatsiyalar yaratish - Qiziqarli o'yinlar va sinovlar yaratish - Keng qo'llaniladigan shablonlar - LMS tizimlari bilan keng integratsiya	- Keng qamrovli va kuchli dastur - O'quvchilar bilan o'zaro faoliyatni kuchaytiradi - Keng shablon tanlovi	- O'rganish murakkabligi - Yuqori narxda bo'lishi mumkin - Yaratish jarayoni ko'proq vaqt talab etadi
Lectora Inspire	- Ko'p tilni qo'llab-quvvatlash - Illyustratsiyalar, videolar, va interaktivlik qo'shish - Testlar va kvestlar yaratish - SCORM, AICC va xAPI eksport imkoniyatlari - Har xil platformalarga moslashtirish	- Juda moslashuvchan - Ko'p platformalarda ishlash imkoniyati - Keng xususiyashtirish imkoniyati	- Foydalanish oson emas - Ko'proq texnik bilim talab qilishi mumkin - Narxi yuqori va ko'plab funksiyalar keraksiz bo'lishi mumkin

Foydalanilgan adabiyotlar ro'yxati:

1. Sulta Hanika, G. Guspatni. "Development of learning media powerpoint-iSpring integrated with prompting questions on stoichiometry topics." Jurnal Pijar Mipa (2023). <https://doi.org/10.29303/jpm.v18i1.4634>.
2. M. Azhar et al. "Teacher Competence in Making Learning Media of ICT-Based PowerPoint-iSpring with Emphasis on Three Levels of Representation." Pelita Eksakta (2021). <https://doi.org/10.24036/PELITAEKSAKTA/VOL4-ISS1/132>.
3. Ayulia Annisa Nasution et al. "Differences In Learning Outcomes Of Students Taught With Problem Based Learning Model Assisted By iSpring Suite 10 Media And Powerpoint On Chemical Equilibrium Material." Jurnal Teknologi Pendidikan : Jurnal Penelitian dan Pengembangan Pembelajaran (2023). <https://doi.org/10.33394/jtp.v8i3.7439>.
4. Samuel Gideon, Anna Angela Sitinjak, Herry Darmadi. "The Implementation of iSpring Quiz Maker as The Online Exam Tool of Physics Worklab during the Covid-19 Pandemic." Jurnal Ilmu Fisika dan Pembelajarannya (JIFP) (2021). <https://doi.org/10.19109/jifp.v5i2.10218>.
5. Desfion Mayuri, Prima Aswirna, Hurriyah Hurriyah. "Development of a quizmaker ispring approach assessment instrument to measure understanding of student concepts." Jurnal Inovasi Pendidikan IPA (2022). <https://doi.org/10.21831/jipi.v7i2.30847>.

6. Lestarani, D., Lalang, A., & Manggi, I. Development of Articulate Storyline 3-Based Digital Teaching Materials on the Subject of Atomic Structure and Periodic Elements System for SMA/MA Students in Class X. *Orbital: The Electronic Journal of Chemistry*. . (2023). <https://doi.org/10.17807/orbital.v15i2.17959>.
7. Afrida, S., Suyanti, R., & Sudrajat, A. Innovation of Interactive Multimedia Based on Guided Inquiry Using Articulate Storyline 3 as A Learning Media for Carbon and Silicone Materials in Non-Metal Inorganic Chemistry Courses. *Duconomics Sci-meet (Education & Economics Science Meet)*. (2021). <https://doi.org/10.37010/duconomics.v1.5441>.
8. Fajrina, W., Simorangkir, M., & , N. (2018). Developing Interactive Computer Based Learning Media of Lectora Inspire to Enhance Conceptual Skills of Senior High Schools Students. . <https://doi.org/10.2991/AISTEEL-18.2018.12>.
9. Irfani, W., Siagian, E., , N., & Silaban, R. (2019). Preparing an ICT Innovation with Lectora Inspire as Teaching Media for Electrolyte and Non-Electrolyte Solutions for High School Class X. *Proceedings of the 4th Annual International Seminar on Transformative Education and Educational Leadership (AISTEEL 2019)*. <https://doi.org/10.2991/aisteel-19.2019.71>.
10. Sary, P., & Jahro, I. (2022). The development of interactive multimedia based lectora inspire on chemical bonding material for grade X senior high school. *Educenter : Jurnal Ilmiah Pendidikan*. <https://doi.org/10.55904/educenter.v1i4.109>.