College of Education Proposal for Strategic Alignment and Budget Reduction

March 15, 2010

1. Overall plan for strategic alignment and budget reduction

In addition to the strategic alignment and budget reduction guidelines, the College of Education proposed changes have been influenced by the university charge to focus on STEM (science, technology, engineering, and math) education and other strategic areas; the need to expand programs at the Cascades Campus; the OUS Task Force on Teacher Education; and a number of state and national education initiatives.

Currently, the College of Education serves about 1,600 students, about 1,300 undergraduates and 300 graduate students. All of the undergraduate students are enrolled in the Education Double Degree, OSU’s second largest undergraduate major. As currently organized, the College of Education has three departments and two other units, the Western Center for Community College Professional Development and SMILE (Science and Math Investigative Learning Experiences Program).

Given that one of the College’s departments (Youth Development Education) will move to the College of Health and Human Sciences, and another (Adult Education and Higher Education Leadership) is considerably smaller than prescribed by the planning guidelines, it is proposed that the College be organized as a “faculty of the whole,” including faculty currently in the Department of Science and Math Education in the College of Science (through a joint venture with the College of Science). Academic and research programs would have a focus on STEM and cultural and linguistic diversity, both areas of great importance to teaching and learning in and out of schools. Research activity will be advanced through a new Center for Research on Lifelong STEM Learning (a joint venture with the College of Science) and the existing Western Center for Community College Professional Development.

The College’s mission would be to conduct research and deliver programs toward the improvement of learning and teaching environments situated in multiple social and cultural contexts across the lifespan. In particular, the research efforts and practices focus on STEM learning to produce educated citizens and professionals who are prepared to work on science, mathematics, and technologically challenging societal issues. The program will (a) focus research on understanding STEM learning over a life span in increasingly complex learning and teaching environments, (b) design research to improve educational practices with a focus on cultural and linguistic diversity, and (c) offer compelling academic programs in learning and teaching at the undergraduate (including teacher licensure) and graduate levels informed by research. The focus on STEM learning represents a significant partnership with the College of Science and the Center for Research on Lifelong STEM Learning, building on the expertise of faculty throughout the university. (See Appendix B for the faculty planning group report on the reorganization of the College. Note that the consideration of a new name for the College has been proposed.)

2. Summary of alignment with academic and administrative guidelines

- The proposed organization of the College of Education (and Learning Sciences) would be a “faculty of the whole,” which, including SMED faculty and education faculty at the Cascades Campus would be about 45 faculty on annual appointment with an FTE of at least 0.5. In addition to the College “faculty of the whole,” there would be two other units, the existing Western Center for Community College Professional Development and the proposed Center for STEM Teaching and Learning.

The Western Center has five fixed-term staff, all of whom are funded through projects, the largest of which is a recurring annual contract of about $425,000 from the Oregon Department of Education in support of
professional development for Oregon community college faculty. Faculty formerly associated with the Department of Adult Education and Higher Education Leadership and others engaged in research related to community colleges will be affiliated with the Western Center.

The Center for Research on Lifelong STEM Learning would promote a holistic, university-wide approach to understanding and supporting cradle-to-grave STEM learning that would accomplish the following:

- Creatively build a nexus and critical mass of inquiry around lifelong STEM learning.
- Build a core partnership among the Colleges of Science, Engineering and Education (and Learning Sciences) to leverage opportunities for external funding of research and programs.
- Re-conceptualize the meaning of STEM learning research by tapping into and supporting the signature areas of scientific and technological distinction at OSU.
- Substantively involve colleagues from across the university in leveraging resources and providing the interdisciplinary base for tackling large STEM-related problems.
- Significantly raise OSU’s profile as a national/international leader in STEM learning research. OSU would become the central source of STEM education information in the state for the legislature, the Oregon Department of Education, and other institutions of higher education.
- Significantly, enhance OSU’s ability to compete for government and private funding in this growing area of national concern and support.

The Center would draw on faculty from multiple colleges (Science, Education, Engineering, COAS, Agriculture, and others) who are already engaged in research on STEM learning and teaching. We do not anticipate substantial first year costs for starting up this Center, as many of the resources and faculty time are already committed in this area. The workgroup is continuing to develop an implementation plan. The Colleges anticipate that the returned overhead from this work will provide the necessary funding for growth of the program (See Appendix C for the faculty planning group report on the proposed Center for Research on Lifelong STEM Learning).

In the proposed organization, SMILE would continue to be a unit within the College of Education, but would transition to be affiliated with the new STEM Center, a university-wide Youth Outreach Center that is being proposed by the SMILE Director and others, or other unit.

- All undergraduate and graduate degree programs offered by the College meet the enrollment guidelines and, with relatively few exceptions, all graduate and undergraduate classes meet the class enrollment guidelines.
- The proposed organizational structure meets the administrative guidelines (levels of management, minimum number of reports).

3. Rationale for exceptions/disconnects

- SMILE, a unit with less than six direct reports, will continue to operate as a College unit through the 2011-12 year, as plans are made for SMILE to be affiliated with the new STEM Center, a university-wide Youth Outreach Center, or other unit.

4. Budgetary implications

- Over the past two years, the College of Education has made strategic cuts in anticipation of targeted investments. The College will end this fiscal year with a modest fund balance and is prepared to make investments in faculty positions in STEM and other strategic areas. Budget implications of the proposed
reorganization include start-up investment in the proposed STEM Center (in partnership with the College of Science), some overlap in College administrative positions during the transition, and opportunity costs associated with the change process.

5. Decision making process

- Discussion and decision making engaged the College Advisory Board, Dean’s Council, Department of Science and Math Ed./College of Ed. Planning Committee, and Division of Arts and Sciences Planning Committee. Faculty and staff were engaged in the process through meetings, email, and a BlackBoard web site.

Addendum on planning for the expansion of education offerings at the Cascades Campus

Planning for the expansion of education offerings at the Cascades Campus has been informed by the College Advisory Board (which includes the Bend School Superintendent and a member of the Cascades Campus Advisory Board), discussion of the Dean’s Council (which includes Jay Casbon of Cascades Campus), and the results of interviews with Central Oregon school superintendents conducted by Kathy Persing, a member of both the College and Cascades Campus Advisory boards.

Currently, there are five faculty on annual appointment (two tenure-track and three instructors) and about 100 students enrolled in education programs at Cascades Campus in the Counseling MS, Elementary MAT, and Language Arts MAT programs. Plans for expansion include modification of the Language Arts MAT to include social studies education, addition of a science and math MAT, and a series of courses to address continuing education needs of regional teachers. Those courses, when combined with other on-line graduate Education courses, can be used to earn a master’s degree in education. With the addition of social studies, science, and math (and expansion of the counseling masters enrollment), enrollment in education programs at the Cascades Campus will grow to about 150 students by 2013. Given the relatively large number of Cascades education students and complexity of their professional programs, it will be especially important for Cascades Campus to plan for additional faculty and a leadership position for education programs with responsibility for curriculum coordination/liaison, scheduling, staffing, and assessment.

Another possibility for expansion of Cascades education programs is in counseling. Currently, the same master’s degree in counseling (with school counseling and community counseling options) is offered at both the Cascades and Corvallis campuses. A doctorate in counseling is also offered through Ecampus, managed by faculty at Corvallis. With changes in national accreditation requirements and a suspension of enrollment in the master’s degree at the Corvallis campus for the 2010-11 year, we are commissioning a joint Corvallis/Cascades planning group with responsibility for providing analysis and recommendations regarding the future of counseling programs at the Cascades and Corvallis campuses. Specific options to be considered are the consolidation of masters programs (on and off campus) at the Cascades Campus with the doctoral program managed by the Corvallis Campus or clear distinction between the master’s programs at the two campuses. It is expected that the planning group will submit their analysis and recommendations to the Dean of Education and OSU Vice President for Cascades Campus before the end of spring term.
Appendix A: Current and Proposed Organizational Structure

Current Organizational Structure

<table>
<thead>
<tr>
<th>Dean</th>
<th>Associate Dean</th>
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<td>Head Advisor</td>
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**Department of Adult Education and Higher Education Leadership**

*Adult Education EdM; Community College Leadership EdD, PhD; College Student Services EdM, MS*

**Department of Teacher and Counselor Education**

*Education Double Degree BA/BS; Counselor Ed. MS, PhD; Elementary Ed. MAT; On-line EdM; Teacher Leadership PhD; Professional Development (non-degree); University Teacher Licensure*

**Department of Youth Development Education (4-H)**

**Science and Math Investigative Learning Experiences (SMILE)**

**Western Center for Community College Professional Development**

*Elementary Ed. MAT, Secondary Language Arts MAT, and Counseling MS degrees are offered at the Cascades Campus

*Agricultural Ed. MS, Music MAT, Physical Ed. MS, Science and Math Ed. MS are offered in partnership with other colleges

Proposed Organizational Structure

The proposed organization of the College of Education (and Learning Sciences) would be a “faculty of the whole,” which, including Department of Science and Math Education faculty and education faculty at the Cascades Campus would be about 45 faculty on annual appointment with an FTE of at least 0.5. In addition to the College “faculty of the whole,” there would be two other units, the existing Western Center for Community College Professional Development and the proposed Center for STEM Teaching and Learning. SMILE would continue to operate as a unit in the College of Education while transitioning to an affiliation with the proposed STEM Center, proposed university-wide Youth Outreach Center, or other unit. The College of Science would fund positions in the College of Education (and Learning Sciences) and provide support for those positions as at present. Accountability for the productivity of those positions would be from the Dean of Education to the Dean of Science. The College of Education would manage strategy, assignments, and personnel. Promotion and tenure evaluations for jointly funded positions would include both Deans.

During the 2010-11 year, the College will transition from departments to faculty clusters intended to advance curricular development, research, and academic communities. Administrative functions will transition from departments to the central college level. A proposed infrastructure for the College is described in Appendix B.

The College will continue to represent all university teacher education programs, including those at the Cascades Campus, for state licensure, program approval, and national accreditation.
Appendix B: College of Education/Science and Math Ed. Planning Group Report

Proposal for College of Science and College of Education Faculty Collaboration (Preliminary Draft)

The President and Provost provided an image of how learning research might be transformed in a research extensive university. We (the working group for college organization) have taken this invitation seriously to consider how faculty might put forward a mission that positions the unit as a regional, nation, and global leader in research on lifelong STEM focused learning. We also have adhered to the Provost’s recommendations to create synergies of work suggesting that this new unit is a college of the whole. To reflect a research-focused unit and position the college as a partner in a research-oriented division within the university, we propose a new name for this unit of the whole, the College of Learning Sciences (CLS). Through consultation with numerous faculty and former and current administrators, the college working group committee, convened by Deans Sherm Bloomer and Sam Stern, are charged with creating a structure that supports this new vision of a STEM-focused research unit. We propose the following missions and research agenda of the college as well as organizational structures to support them.

Mission Statement
The CLS’ mission is to conduct research and deliver programs toward the improvement of learning and teaching environments situated in multiple social and cultural contexts across the lifespan. In particular, the research efforts and practices focus on STEM learning to produce educated citizens and professionals who are prepared to work on science, mathematics, and technologically challenging societal issues. We balance research with the responsibility to serve the learning and teaching professions. We accomplish this balance by (a) focusing research on understanding STEM learning over a life span in increasingly complex learning and teaching environments, (b) designing research to improve educational practices with a focus on cultural and linguistic diversity, and (c) offering compelling academic programs in learning and teaching at the undergraduate and graduate levels informed by research. The focus on STEM learning represents a significant partnership with the College of Science and the Center for the Study of STEM Learning, building on the expertise of faculty across divisions.

Guiding Principles of Organization
- Focus on research in STEM learning and teaching building on the university’s land grant mission.
- Organizational support for research agendas that put forward national and internationally recognized scholarship and faculty who are positioned to make serious progress on regional, national, and global issues in lifelong learning and teaching situated in diverse social and cultural contexts.
- Programs at the undergraduate and graduate levels embodying the College’s research agenda of lifelong learning in culturally and linguistically diverse environments.
- Leverage the research of faculty to coordinate and collaborate within division and across division to inform undergraduate STEM education.
- Strong partnership between tenured-line and instructor faculty to ensure high quality research informed programs for all students.

Infrastructure of College
As a college of the whole, we are proposing the following structure and positions for the College of Learning Sciences. Titles for positions are placeholders and will need to consider the University, Division and College reporting structures.

The Dean’s office will be supported by (1) Associate Dean of Research and (2) Associate Dean of Academics & Operations. These two Associate Deans will oversee three clusters of programs with support structures to be determined to successfully direct and administer programs in the three clusters. These clusters are: Professional Programs, Doctoral Programs, and Professional Teacher Education Programs. The Associate Dean of Academics...
will also work closely with the Head Advisor of the undergraduate program and a similar position overseeing initial advising in all graduate programs.

The Associate Dean of Research will focus primarily on assuring faculty are positioned to engage in research and programs to fulfill the College’s mission and produce graduates to become scholars in their fields. The Associate Dean will also be a liaison to faculty-affiliated Centers within the college (Western Center), in the division (Center for Research on STEM Learning), and across the University. Duties include, but not limited to:

- Initiatives for interdisciplinary research efforts and collaboration with other colleges such as engineering, forestry, etc. and national and international institutions
- Infrastructures for increasing the number of grants and contracts submitted and funded
- Expanding the opportunities for non-tenure track faculty to be part of funded research proposals/programs
- Research seminars and professional development
- Scholarship of faculty -- Encourage and track indicators of faculty distinction
- Scholarship of PhD students -- Support for doctoral student research publications and scholarly inquiry.
- Fundraise--Expand business and industry partnerships, enhance/increase alumni relations and major gifts, ensure internal funding for pilot projects leading to larger awards

The Associate Dean of Academic Affairs oversees programs, policies, procedures, and initiatives related to undergraduate students and graduate students in professional degrees. These include:

- Recruitment, enrollment, and retention—including initiation and participation in diversity initiatives, support for OSU recruitment efforts and events, enrollment coordination, oversight of college and university graduation requirements, coordination of scholarships and fellowships, oversight of student petitions and grievances, coordination of student clubs and the Honor Board, and coordination of student employment opportunities.
- Coordination of curriculum and advising—including articulation with universities and community colleges, curriculum coordination with OSU, undergraduate degree program, and accreditation by professional societies including teacher licensure.
- Enhancement and assessment of instruction—including student assessment of teaching and advising and program evaluations.
- Coordination of student-related international academic exchanges and agreements

Implementation Tasks and Decisions

Faculty
1) Align tenured-line and instructor faculty job descriptions to meet the mission of the college.
2) Pathways for yearly evaluation & Tenure/Promotion reporting structure for all (tenure-line and instructor) faculty.
3) Build and strengthen synergies of collaborations on research and programs within college, division, and university.
4) Construct infrastructure to support effective and efficient program clusters

Programs
5) Program sustainability – what number of faculty, graduates, and enrolled students are necessary to make a program viable?
6) Sharpen focus on Corvallis campus to Cascades and constructing MS in elementary education.
7) Where do you invest in programs to sharpen focus?
8) What programs are shifted to Cascades or let go?
Appendix C: Proposed Center for Research on Lifelong STEM Learning

Proposal for a Center for Research in Lifelong STEM Learning (Preliminary Draft)

Sharpening the foci of strengths in the University affords a unique opportunity to forge a high profile alliance between the College of Science and the College of Learning Sciences in the formation of a Research Center for building knowledge about lifelong learning in science, technology, engineering & mathematics (STEM). By establishing one of the first and arguably the most comprehensive centers in the world devoted to research on lifelong STEM learning, this Center would position OSU at the forefront of information and innovation in Oregon on issues related to STEM learning and education.

A Center, embodying a substantive partnership among the science, mathematics, engineering, psychology, health, business, policy and education communities and building on existing expertise in STEM learning research, would be a national and international model for fostering productive affinities between scientific research, policy and the learning sciences.

Optimizing lifelong learning research in STEM at OSU will directly support the guiding principles of the Phase II Strategic Plan: (1) maximize student learning and success; (2) maximize recruitment and retention of faculty to advance student success and signature areas of distinction; and, (3) use the strategic plan as a guide to current and future opportunities.

Arguably, all of the complex STEM-related issues facing society in the 21st Century have a significant human component; research on how humans come to understand and behave relative to these issues needs to be part of any solution space. Accordingly, basic and applied STEM learning research must be an integral component of each of the three signature areas of scientific and technological research at OSU.

Mission

A holistic, university-wide approach to understanding and supporting cradle-to-grave STEM learning would accomplish the following:

- Creatively build a nexus and critical mass of inquiry around lifelong STEM learning.
- Build a core partnership among the Colleges of Science, Engineering and Learning Sciences to leverage opportunities for external funding of research and programs.
- Re-conceptualize the meaning of STEM learning research by tapping into and supporting the signature areas of scientific and technological distinction at OSU.
- Substantively involve colleagues from across the university in leveraging resources and providing the interdisciplinary base for tackling large STEM-related problems.
- Significantly raise OSU’s profile as a national/international leader in STEM learning research. OSU would become the central source of STEM education information in the state for the legislature, the Oregon Department of Education, and other institutions of higher education.
- Significantly, enhance OSU’s ability to compete for government and private funding in this growing area of national concern and support.

Metrics & First Year Operation

- No first-year costs; Appoint a point of contact for Center
- Grant expenditures per STEM tenure-track faculty
  - FY09 $130.5K; with Math $140K
  - FY10 (to date) $114.3K [projected $150K]; with Math $143K [projected $190K]
  - FY11 $300K (est.)
- Prepare Category I proposal and develop business plan
- Develop job descriptions for director and support services
- Engage stakeholders across campus and in the state
  - Oregon Department of Education & Other State Government Departments
  - Major STEM-related institutions and businesses
**Need**

There is a growing consensus nationwide for a greater focus on understanding and promoting *lifelong* STEM learning; the need for improvements in STEM learning are apparent at both the state and national levels; within the formal school structure grades K to 16 and within the public in general.

- Recently, the National Governor’s Council concluded: “Effectively integrating... (STEM) education and its impact on the economic opportunity into the culture is more important today than anyone ever anticipated. Our nation’s recent economic struggles, coupled with concerns about career readiness and 21st century jobs, have refocused our attention on infrastructure improvement—both physical and human. At the heart of rebuilding our nation’s intellectual infrastructure is a STEM-literate society, students equipped with the STEM skills needed to succeed both in school and career and citizens capable of understanding and making good decisions related to the myriad challenges facing the nation.”

- In 2009 an Oregon State Task Force commented: “The State of Oregon, currently ranking 4th in the United States for high tech arena business volume, recognizes the crucial need to generate its own human capital of scientists, engineers, technology leaders, teachers and STEM...-literate citizens.”

- Improving college-level instruction in STEM areas, including how to better attract and retain quality students from historically under-represented groups at both the undergraduate and graduate levels, requires high quality research and development.

- While there are over 100 separate STEM education programs supported by the federal government, primary support for STEM educators and students comes through the Department of Education and the National Science Foundation with approximately $1.2 billion in funding proposed in FY11.

### Selected Collaborative Partnerships with Current Funding (Out of about 70 total partnerships)

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<thead>
<tr>
<th>National/International</th>
<th>State/Regional</th>
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<tbody>
<tr>
<td>Australian Research Council</td>
<td>Beaverton School District</td>
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<tr>
<td>California State University Long Beach</td>
<td>Chemekata Community College</td>
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<tr>
<td>Chuncheon National University of Education</td>
<td>Eugene School District</td>
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<tr>
<td>Ctr. for Advancement of Informal Science Education</td>
<td>Lincoln County School District</td>
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<tr>
<td>Korea Institute for Curriculum and Evaluation</td>
<td>Oregon Coast Aquarium</td>
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<tr>
<td>Maryland Science Ctr/National Aquarium, Baltimore</td>
<td>Oregon Museum of Science &amp; Industry</td>
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<tr>
<td>Montana State University</td>
<td>Oregon Zoo</td>
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<tr>
<td>Seoul Metropolitan Office of Education</td>
<td>Redmond School District</td>
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<tr>
<td>Smithsonian Astrophysical Observatory</td>
<td>University of Washington Mathematics Education</td>
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<tr>
<td>Smithsonian National Museum of Natural History</td>
<td>Vernier Software &amp; Technology</td>
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<tr>
<td>University of Queensland</td>
<td>Washington State University Engineering</td>
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<tr>
<td>WestEd, Mathematics Education</td>
<td>Western Oregon University</td>
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### Selected OSU Faculty (out of approx. 60) Invested in Conducting STEM Learning Research

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<thead>
<tr>
<th>Dept. of Science &amp; Mathematics Education</th>
<th>Other Faculty</th>
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<tbody>
<tr>
<td>John Baek, free choice learning, science</td>
<td>SueAnn Bottoms, education</td>
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<td>Derron Coles, EOP mathematics</td>
<td>Dan Cox, engineering</td>
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<tr>
<td>Lynn Dierking, free choice learning, science</td>
<td>Dedre Demaree, physics</td>
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<tr>
<td>Rebekah Elliott, mathematics</td>
<td>Tom Dick, mathematics</td>
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<tr>
<td>Larry Enochs, science education</td>
<td>Tevian Drey, mathematics</td>
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<tr>
<td>John Falk, free choice learning, science</td>
<td>Barbara Edwards, mathematics</td>
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<tr>
<td>Larry Flick, science</td>
<td>Terri Fiez, engineering</td>
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<tr>
<td>Nam Hwa Kang, science</td>
<td>Henri Jansen, physics</td>
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<td>Margaret Niess, emeritus mathematics</td>
<td>Karen Higgens, education</td>
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<tr>
<td>Shawn Rowe, free choice learning, science</td>
<td>Milo Koretsky, chemical engineering</td>
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<tr>
<td>Emily van Zee, science</td>
<td>Bob Lillie, geoscience</td>
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<td>SueAnn Bottoms, education</td>
<td>Corine Manogue, physics</td>
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<td>Dan Cox, engineering</td>
<td>Dawn Wright, geosciences</td>
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<td>Dedre Demaree, physics</td>
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